

American Chamber of Horrors

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THE TRUTH ABOUT FOOD
AND DRUGS

by Ruth deForest Lamb

ILLUSTRATED WITH PHOTOGRAPHS

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**THIS BOOK IS DEDICATED
TO THAT GALLANT GROUP OF WOMEN WHO
HAVE BEEN HOLDING THE FRONT-LINE
TRENCHES IN THE CONSUMERS' WAR FOR
PURE FOODS, DRUGS AND COSMETICS—**

MRS. ALVIN BARBER

American Association of University Women

MISS MARY LINDSLEY AND MISS MARIE MOUNT

American Dietetic Association

MISS ALICE EDWARDS AND MRS. PAUL HOWE

American Home Economics Association

MISS CLARA NOYES

American Nurses' Association

MISS MARGARET C. MAULE

Girls' Friendly Society

DR. JULIA M. GREENE

Homeopathic Medical Fraternity

DR. LOUISE TAYLOR JONES AND DR. HELEN KAIN

Medical Women's National Association

MISS ELIZABETH EASTMAN

National Board of the Young Women's Christian Association

MRS. WILLIAM T. BANNERMAN AND

MISS RUTH A. BOTTOMLY

National Congress of Parents and Teachers

MRS. LOUIS OTTENBERG

National Council of Jewish Women

MRS. HARRIS T. BALDWIN, MISS GWEN GEACH,

MISS FLORENCE KIRLIN AND MISS EDITH ROCKWOOD

National League of Women Voters

MISS ELISABETH CHRISTMAN

National Women's Trade Union League

MRS. HARVEY W. WILEY

District of Columbia Federation of Women's Clubs

MISS IZORA SCOTT

National Women's Christian Temperance Union

P R E F A C E

The Author Ventures an Explanation

When President Roosevelt, soon after his inauguration, called for a new food and drugs act which would give consumers better protection against dangerous fakes and quality-chiseling than the present antiquated pure food law affords, officials of the Department of Agriculture drafted the Copeland Bill.

That measure, proposed in the interest of the public—and therefore of honest manufacturers—promptly brought down about the heads of its sponsors a hornet-like swarm of criticisms, accusations and questions. Those whose profitable, if anti-social, business practices would be curbed by such a law lost no time in denouncing it. In like manner, irresponsible persons who look upon consumer protection as a private racket to be exploited by the same sort of exaggeration and misrepresentation the patent medicine vendors so often employ directed their buzzing against the bill's proponents.

The questions, however, have come from consumers who naturally want to know what the shooting's about. Why do we need a new law? What's the matter with the old Food and Drugs Act? Is it still being enforced? What has the Department of Agriculture to do with it? Where does Senator Copeland come in? Who actually drafted the Copeland Bill? What was in it? Who opposed it? Who fought for it? Who emasculated it—or wasn't it emasculated? What happened to it?

Because it has been my privilege to have access to official records—to observe impartially and at first hand the facts behind the Copeland Bill—I have tried, as fairly and temperately as I know how, to answer those questions in this book.

But first of all, to get any sort of perspective on the facts, it should be remembered that Dr. Wiley's pioneer "pure food law" was enacted more than a generation ago. So effective has it been in cleaning up the abuses of 1906—particularly in respect to foods—that few people not familiar with enforcement problems of the present day realize it is out of date. But new modes of living, new kinds of products, new methods of manufacturing and selling, new tricks of sophistication, new scientific discoveries—all demand a more modern instrument of control.

Thirty years ago, magazines and newspapers were published primarily for their editorial content, and radio—as we know it, anyway—was still undreamed of. To a great extent, manufacturers depended upon their labels rather than collateral advertising to sell goods. Requiring labels to tell the truth was thought to be ample protection against dishonest claims. It was, moreover, a decidedly radical step for those days for the Government to try to regulate labels, let alone other advertising. In consequence, the manufacturer of today finds it possible to inflate the demand for his wares through wildly extravagant advertising wholly at variance with the truthful claims on his label.

Again, cosmetics, which today constitute a billion-dollar industry, seemed hardly important enough in 1906 to be drawn into the net of the law's jurisdiction. To this day, unless they bear medicinal claims on their labels, they are not subject to Federal regulation. Likewise, many dangerously potent drugs, such as the liver-destroying cinchophen in some rheumatism "remedies," are sold without restriction simply because they are not adulterated and their labels say nothing that violates the law. Except for a few specifically named narcotics and habit-forming drugs, the presence of such ingredients need not be stated on the label.

But probably the most serious handicap the Government suffers in trying to regulate drugs is the obligation to prove fraud—always a difficult proceeding, for it means showing that the manufacturer knows he lies when he claims merit for a worthless product.

The food industry, too, offers many serious problems, although in many respects it has been pretty well cleaned up. Except those for butter and a few canned foods, there are no legal standards by which to measure the composition and quality of comestibles; nor is there any legal authority for Government supervision of food plants—except in the seafood industry—despite frequent serious perils to health. Foods sold under fancy trade names are practically exempt from the provisions of the law through the “distinctive name” joker; while poisons are not provided for unless they are “added.” Even in that case, there is no satisfactory authority for dealing with them.

Lack of control over curative devices, so many of which are palpable fakes, as well as the light penalties which chronic offenders seem to regard as license fees for carrying on an illegitimate business, are among other defects in the law that need to be remedied.

The Copeland Bill was designed to meet all these limitations. In order to illustrate them at the Senate hearings on the bill, inspectors of the Food and Drug Administration sent in to Washington samples of some of the injurious and fraudulent products they had picked up in the regular course of their work, but against which no action could be taken because of the quirks in the law. These samples were mounted on ordinary beaver board with captions showing what the loopholes are. Similar exhibits had been used at the time Dr. Wiley’s law was under consideration, and again when it was amended. As fast as the new ones were assembled, they were piled up on a table in the Chief Inspector’s office; but with the bottles getting knocked off and broken, it was soon found advisable to set them up around the wall. There they attracted so much shocked attention from the visitors to the office that reporters dubbed them the “Chamber of Horrors.”

By no means all of the products displayed in the “Chamber of Horrors” were dangerous to health; many of them menaced only the pocketbook. But the trade, as well as the newspapers, has continued to apply the name to any exhibition of law-proof

foods, drugs and cosmetics that illustrates the evils in those industries and points the need for their legislative correction. With the customary apologies, I have therefore chosen as a fitting title for this book "American Chamber of Horrors."

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American Chamber of Horrors

CHAPTER ONE

“Why Doesn’t the Government Do Something About It?”

YOU’VE been told you take your life in your mouth every time you bite into an apple or brush your teeth. All of your food is injurious, and your drugs and cosmetics are dripping with poisons. Anesthetic ether is always adulterated, and the ergot on which physicians depend to stop the hemorrhages of childbirth is impotent—unless, of course, it comes from Spain. The reason is that most enforcement officials are in league with crooked manufacturers. Since, unlike most people, they do not have to eat and never use medicines or toilet preparations, they don’t care a hang what happens to you.

Opponents of the proposed new food and drug legislation (which they insist on calling the “Tugwell Bill”) will tell you, on the other hand, that those fanatics in Washington want to burn down the house to get rid of a few rats in the attic. If Government officials had their way, you couldn’t even take an aspirin tablet without a doctor’s prescription—for, as everybody knows, they are under the thumb of the Medical Trust in Chicago. And according to Dr. Wirt, that Bolshevik in the Department of Agriculture—the one who is trying to make himself “czar” of the food and drug industries at the same time that he seeks to destroy them—was merely trying to intimidate the newspapers into supporting his revolution when, through the guise of a bill for consumer protection, he threatened to kill all their advertising.

What are you supposed to believe? Are there really products

in common use so dangerously fraudulent as to menace not only your economic welfare but your health, and even your life? If these things do exist, why doesn't the Government do something about them? Or is it all just newspaper talk—with a group of bureaucrats taking advantage of the popular commotion to get more power for themselves?

It is all too true that a pretty young woman was blinded by an eyelash dye. It is also true that scores of others suffering from paralysis and impaired vision have been sent to hospitals for long and expensive treatment as the result of using a rat poison to banish superfluous hair. A prominent business man really was killed by a radium-charged drinking water that dissolved the bones of his skull instead of curing the ailment for which it was advertised. Three sisters, one after another, rubbed horse liniment on their cough-racked chests in the pathetic belief that it would cure them—and died of tuberculosis. At this very moment, men and women all over the country are literally burning their tissues to death in trying to reduce their weight with deadly dinitrophenol.

All of these tragedies, and countless others, have actually happened. They have happened, not because Government officials are incompetent or callous, but because they have no real power to prevent them. Of the four Federal agencies commonly supposed to control such conditions, not one has the legal authority to do it.

The responsibilities of the Public Health Service, for instance, a bureau which most people credit with having almost unlimited authority in all matters pertaining to health, are specifically defined. Through its quarantine powers, the bureau keeps dangerous diseases from being brought into the country or carried from one State into another. It does not, as many people seem to think, treat or prescribe for individuals other than seamen, Federal prisoners, and certain other public beneficiaries; nor does it lay down sanitary regulations for the States. An important part of its work is research into human diseases to find out what causes them and how they may be prevented. In addition to these strictly public-health functions, the bureau is re-

sponsible for the purity of the food and drinking water on interstate railroads and marine vessels, and for the supervision and control of biologic products—that is, serums, viruses, vaccines, antitoxins and the like. To safeguard the public against the spread of anthrax, the bureau has authority to control interstate traffic in lather brushes. To protect against typhoid fever and similar diseases, it is empowered to inspect the beds for growing oysters, clams and other shellfish, and also the shucking houses and packing plants; and it can forbid shipments whenever there is danger that disease will be spread. Because the Marine Hospital Service, of which this bureau is an outgrowth, was originally supported by a tax of 20 cents a month gathered in by the collectors of customs from all seamen employed on American vessels, the Public Health Service has developed as a part of the Treasury Department. But it is in no sense a financial agency, nor, with these few exceptions, has it any authority over commercial products.

There are, however, three other regulatory agencies within the Federal Government which you might think offhand could clean up the dangerous fakes in interstate commerce—namely, the Post Office, the Federal Trade Commission, and the Food and Drug Administration. Yet the statutory authority of every one is hamstrung in some way. To get a clear picture of their limitations, it will be illuminating to look into the history of a typical law-proof article—*Marmola*.

Widely advertised for years as an obesity cure, *Marmola* is composed essentially of thyroid extract and bladderwrack, a seaweed rich in iodine. Unquestionably, *Marmola* does reduce weight, but not without serious prejudice to health. By supplementing the natural thyroid secretion and stimulating the gland itself to greater activity, it causes the body tissues, including the fat, to be burned up at an abnormally rapid rate. Naturally, the weight goes down. But that is not all that happens! With a person whose thyroid gland is normal, the use of *Marmola* constitutes overdosage of two dangerous drugs. With one whose thyroid is already over-active, its use may bring about nervous and digestive disturbances, heart symptoms, headache, delirium,

fever, and even collapse, coma and death. Obviously, it is not a product to be taken indiscriminately and without the advice of a competent physician.

The nostrum is exploited by Edward D. Hayes, whose earliest ventures were with "lost-manhood" cures, when he was operating as the Dr. Knapp Medical Company and the Dr. Raynor Medical Company. His advertisements in the *Police Gazette* and *Baptist Record* offered a \$3.50 recipe to "cure weak men—free." Some of his advertising copy was so dirty that it was declared in violation of the obscenity provisions of the postal laws. His "recipe," of course, was the fake prescription beloved of old-time medicine men. It called for two or three ordinary, harmless ingredients to be combined with one or two secret preparations that the druggist would not have in stock and could get only from the quack offering the prescription. The same dodge was used at one time to sell *Marmola*.

Hayes' case history serves admirably to show under what circumstances the Post Office can exercise control. For in 1904, when Hayes was using the mails to operate "a scheme or device for obtaining money or other property by means of false or fraudulent pretenses, representations or promises," the Post Office was able to interrupt his activities—for a time. This was accomplished by issuing a fraud order against his companies. The postmaster in Detroit was instructed by the Postmaster General to stamp as "Fraudulent" all mail addressed to the Dr. Knapp Medical Company and the Dr. Raynor Medical Company, and return it to the senders. Had Hayes been willing to do so when he was first cited to a hearing, he might have signed a stipulation to forgo the use of the mails for fraudulent purposes, thus avoiding both the fraud order and its attendant publicity. Theoretically, at least, the stipulation would have made an honest man of him. The fraud order, however, did not bother him much. He simply changed the name of his firm and went on as before until the Post Office caught up with him again. By one technicality or another, he seems to have kept a jump or two ahead of his pursuers until 1914. Then, the Post Office cracked down on his Interstate Remedy Company with

a criminal prosecution. This time, he pleaded guilty and was fined \$5,000. Worse still, from his point of view anyway, his precious sucker list numbering half-a-million names was ordered destroyed.

Just when *Marmola* came into being I do not know. But in the files of the old Bureau of Chemistry there is a letter dated March 19, 1909, which was written by a New York business executive whose wife had taken *Marmola* and *Rengo Fruit*, a similar laxative-thyroid preparation, several months before. He writes:

“My wife has been, since early last October, suffering from persistent anaemia, and the case is now given up as hopeless.”

A week later, he reports:

“——the nurse states that she believes her to be in a weaker condition, and that she will live but a short time. As a matter of course, she still has the doctor’s attention, and he expresses his opinion that the case is hopeless. . . . I have caused a letter to be written to both the makers of ‘Marmola’ and ‘Rengo,’ to the effect that a patient now suffering from persistent anaemia had been using their products, and asking information as to some preparation which will reverse or prove an antidote for the drug taken. From the ‘Rengo’ manufacturer, we received no reply. From the ‘Marmola’ manufacturer we received word that ‘the trouble is not due to the influence of “Marmola,”’ and that ‘it contains nothing that would bring about a case of anaemia, either mild or persistent.’”

Four days later, he writes that his wife is dead.

“I subsequently advised with her physician as to any idea he had causing this persistent anaemia, and his reply was that he could not account for it unless it was ‘through what she had taken,’ referring to ‘Marmola’ and ‘Rengo.’

“Since her death, my eldest daughter advises that she believes her mother took more of these drugs than we thought she had, and there is some reason for this opinion.

“I am now of the opinion that one of those above named, or both of them, was the original cause of this trouble. . . . I

beg to assure you that this letter is written in no spirit of bitterness, but only in sorrow."

In the light of all that we know now about the endocrine secretions, a competent physician has gone over this case record. He says: "The increased quantity of iodine that would be consumed from both *Rengo* and *Marmola* would probably be capable of bringing on what is known as 'iodine cachexia,' of which anemia is one of the symptoms."

Undismayed by the drastic penalty meted out to him in 1914, Hayes continued, through the Marmola Company, to sell his fat-reducer by mail for twelve years more. Only when another fraud order threatened to end the most profitable racket he had ever had, did he abandon the use of the mails. But that move at last put him beyond the reach of the Post Office.

The Federal Trade Commission came into the picture in 1928, when it issued a complaint against the Raladam Company, as Hayes now called himself. In consequence, the company was ordered to stop advertising *Marmola* as "safe, effective and dependable in use, when the present knowledge of thyroid as a remedial agent does not justify such representations." Hayes promptly appealed—continuing, meanwhile, to rake in his profits. (He was doing a business of \$600,000 a year.) Luckily for him, the appellate court decided that there was no basis in law for the action of the Commission, and vacated the order. While it would be to the interest of the public for *Marmola* to be put out of business, so the court reasoned, the Federal Trade Commission, under the powers given it by Congress, was not the agency to do it. This time, the Commission appealed. In a decision hailed with glee by the patent-medicine men and their trade papers, the Supreme Court decided that the business of the Federal Trade Commission is to protect competition—though not necessarily that between knaves! Since it had failed to show any competition, the Commission had no power to act.*

* In May, 1935, the Federal Trade Commission issued a new complaint against the Raladam Company.

The Federal Trade Commission can do nothing about *Marmola*, the Post Office cannot touch it—how about the Food and Drug Administration? It has no jurisdiction, either. Incredible as it may seem, *Marmola* is not a “drug” within the meaning of the Food and Drugs Act. The condition it is “intended to cure, mitigate or prevent”—that is, obesity—is not one generally recognized as disease; its labeling (which means not only the label itself, but the printing on the carton and any folder inside) bears no other curative claims; nor does the stuff purport to be a food and therefore subject to the food provisions. That lets it out.

Marmola represents only one of the many types of snide products that elude control because of limitations in the Food and Drugs Act itself. The public has taken Dr. Wiley’s law so very much for granted, assuming for it a jurisdiction it has never had, that it will be worthwhile to look into its provisions to see what it really does cover. Admittedly, for all its many imperfections, it has done a first-rate job in cleaning up most of the abuses—especially in the food industry—that led to its enactment. But, like most laws, it was only a compromise in the first place. The late great Dr. Harvey W. Wiley, crusading Chief of the old Bureau of Chemistry, forced it through Congress only after a long and bitter fight. Dr. Wiley has said that “the comparison of turning over a log and watching the bugs scamper to cover is too tame” to describe what went on; it was more like “removing a huge brush pile to uncover a nest of hornets.” Were that doughty old warrior to come back and witness the fight that is going on today to strengthen and reinforce his law, he would undoubtedly recognize many of the same old hornets, stinging in the same old way.

“One of my hardest tasks in fighting the fake medical fraternity [Dr. Wiley wrote in his *Autobiography* many years later] was to overcome the support given them by their own dupes and the press. Testimonials were easily obtained for a price, as they are to-day for various products. Obscure and little-known ‘doctors,’ as well as preachers, teachers, and men and

women in all walks of life, were exploited as endorsers of nostrums. The patent medicine manufacturers furnished a great bulk of the average newspaper's advertising, and therefore its income. Advertising contracts were held as clubs over the heads of the editors and publishers, and many newspapers were definitely under the influence of the quacks. The average publisher, grateful for the steady stream of money that poured in from medical advertisers, supinely accepted 'editorial and news' matter written by the advertiser himself, telling of the wondrous cures the nostrum had effected and how all humanity was about to be blessed by this amazing discovery and boon to mankind. The publisher may have blushed for shame in the realization that he was prostituting his news columns and editorial space in behalf of pure fraud, but with the satisfactory thought that the advertisement of the remedy in the same issue of the paper would bring in needed revenue he passed the 'copy' over to the make-up man and no doubt prayed for forgiveness that night. The amount of blood-money coming in from patent-medicine advertisements in newspapers and periodicals in this country at the beginning of the century I estimate to have been about a hundred million dollars annually.

"The late editor of *The Ladies' Home Journal*, Edward Bok, took up the cudgel against patent medicines. He published articles exposing fraudulent nostrums and effectively aided in awakening the country to the disgraceful situation. Some time after Mr. Bok's first article appeared a wealthy business man of St. Louis undertook to have the article printed as an advertisement in newspapers all over the country. At his request I furnished a few of these articles. The advertising firm handling the matter for him reported that they could get no further than a few high-grade papers. The publishers were almost unanimous in refusing to jeopardize their income by incurring the wrath of the patent-medicine manufacturers, who were organized into a society with the imposing name 'The Proprietary Association of America.'

"At the next annual meeting of this patent-medicine pow-wow group they entered in their minutes:

"Resolved, that this association commend the action of the great majority of the publishers of the United States who have consistently refused said false and malicious attacks in the shape

of advertisements which in whole or in part label proprietary medicines.”

But at last, in spite of the boodlers and brigands who were opposed to any sort of regulation, Dr. Wiley got his law forbidding the shipment in interstate and foreign commerce (including, of course, the District of Columbia and the territories) of adulterated and misbranded foods and drugs.

It should be noted that the law does not, as many people suppose, penalize the acts of adulteration and misbranding; it simply closes the channels of interstate and foreign commerce to products which are adulterated and misbranded. It forbids traffic in foods which contain an *added* poisonous or harmful ingredient that may render it injurious to health; which are wholly or partly filthy, decomposed or otherwise unwholesome; which are debased and do not reveal their inferiority on the label; and which are deceptively labeled. It requires drugs to conform to the standards of strength and purity set up by the United States Pharmacopoeia and National Formulary, and their labels to be free from false and misleading statements of composition, and from false *and fraudulent* therapeutic claims. The term “food” includes “all articles used for food, drink, confectionery, or condiment by man or other animals, whether simple, mixed, or compounded.” “Drugs” includes “all medicines and preparations recognized in the United States Pharmacopoeia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease of either man or other animals.” There is no provision for cosmetics, and none for therapeutic devices. While the law requires labels to tell the truth, it does not enjoin the whole truth; nor does it apply to advertising.

During all these years, the Pure Food Law has been amended only four times. The Sherley Amendment, passed in 1912, forbids false and fraudulent therapeutic claims on the labels of patent medicines. The Net Weight Act, put through the following year, requires a declaration of quantity on packaged

foods. The McNary-Mapes Amendment, popularly known as the "Canners' Bill" and enacted in 1930, authorizes the Secretary of Agriculture to set up a minimum standard of quality, condition and fill of container for every generic class of canned foods except milk and meat products. The "Shrimp Amendment" of 1934 authorizes supervisory inspection of the seafood industry for all packers desiring the service.

The first of these amendments contains an innocent-looking joker which has, for nearly a quarter of a century, prevented any sort of adequate control over quack remedies. The reason is that those two little words, "*and fraudulent*," compel the Government to prove that the manufacturer who labels a horse liniment, let us say, as a cure for human tuberculosis, knows he is swindling his customers. Now, that's not so easy as it may sound. It cost the Government \$75,000 over a period of ten years to collect enough death certificates, paid testimonials and other evidence to convince a jury at last that "that jolly little fat man" really knew his stuff was no good.

The history of this joker is important in view of what has happened since. The original Wiley law forbade "false or misleading statements" on the labels of foods and drugs. The Supreme Court, however, in the first test case for drugs to be carried to that tribunal—*Dr. Johnson's Combination Treatment for Cancer*—ruled that such statements related only to the identity of the product, and not to its curative properties. Manufacturers who had begun to clean up their labels to conform with the law, promptly reverted to type. Less than a month after the decision had been handed down, President Taft was sending a special message to Congress:

"The need is urgent for legislation which will prevent the raising of false hopes of speedy cures of serious ailments by misstatements of fact as to worthless mixtures on which the sick will rely while their diseases progress unchecked. . . . The statute can be easily amended to include the evil I have described. I recommend that this be done at once as a matter of emergency."

A year later, the Committee on Interstate and Foreign Commerce was considering, not one bill to amend the act, but a round dozen. Already, other defects in the law had become so apparent that the Bureau of Chemistry was on hand with a full-fledged “Chamber of Horrors” (though this institution did not receive its name from the newspapers until 1933) to ask control over cosmetics, devices, advertising—and even tobacco, because the leaves carried a poisonous spray residue of arsenic and lead! While Dr. Wiley was no longer associated with the Bureau of Chemistry, he came forward to lend the tremendous support of his prestige to the Richardson Bill, the one backed by the Department.

“It will cure a great many defects in the present law . . . in the light of six years’ experience in the enforcement of the drug act, I would say that would give immense strength to the law.”

But the Proprietary Association, the patent-medicine pow-wow group that Dr. Wiley referred to in his book, as well as all the other drug interests, were represented at those hearings, too. The testimony of one of their more prominent spokesmen may give you a clue as to how the joker provision—and nothing else—found a place in the law:

“. . . aside from some measure like the Sherley bill to meet so far as possible the decision in the Johnson case and President Taft’s recommendations thereto . . . this Congress should enact no new drug legislation by way of amending the present food and drugs act or otherwise. . . . But I say I think the Sherley bill would be effective to correct the real evil. It would not permit the department, perhaps, to prosecute, or rather persecute, honest concerns because they make statements respecting their remedies that in the opinion of the department are not correct . . . however, the word ‘and’ in the last line of the printed bill is to be construed as a conjunctive so as to require the statement of the curative or therapeutic effect of the article to be both false and fraudulent in order to constitute an offense.”

And so the Sherley Bill was passed. It might interest you to know that this gentleman—who was as active in 1912 in getting those two little words into the Food and Drugs Act as his successor has been in 1934 in keeping trade practice and labor clauses out of the Pharmaceutical Code—was none other than Mr. Charles M. Woodruff of Parke, Davis & Company. For this ambidextrous ethical firm, just as it does today, was throwing bouquets at the medical profession with one hand, while with the other it was busily mixing together the ingredients of *Marmola* and other “private formulas” to be peddled by the quacks.

CHAPTER TWO

Beauty—At Cost

YOUR Government has not the legal right under the present Food and Drugs Act to protect you against dangerous cosmetics. The law does not apply to toilet preparations and those which are harmful cannot be taken off the market no matter what pain and disfigurement they inflict. Tragedies from the use of such products are by no means of uncommon occurrence.

On the morning of May 17, 1933, a charming lady whom we shall know as "Mrs. Brown" drove downtown to have her picture taken. She had worked hard all winter as secretary of the local Parent-Teachers Association and as chairman of the Entertainment Committee. That evening her associates were giving a banquet in her honor. They had asked for a picture of her to put in the State P.T.A. magazine, so she was having it made.

An hour later, she stopped at Byrd's Beauty Shoppe to get a shampoo and haircut. But since this was to be a special occasion and she naturally wanted to look her best—she was a lovely looking woman—she let herself be persuaded to have her brows and lashes touched up. To her amazement, this proved to be an elaborate procedure, and the girl made such a mess of it that it took the better part of an hour to get it cleaned up.

Mrs. Brown drove home. Her eyes were beginning to smart a bit—as if she had got something in them. Two hours later they were so badly irritated that she could hardly see. When boric acid gave no relief, she bathed them with 10 per cent. argyrol made up fresh for her by her druggist. For the burning

sensation on her forehead and under her eyes she applied yellow oxide of mercury ointment, as any physician might have done. But the pain grew steadily worse. Her face was smarting, her nose was stuffy and runny, her head ached, and she felt as miserable as if she were coming down with a cold. How could she ever sit through the banquet? As the guest of honor she felt she had to go, and she forced herself to stick it out until nine o'clock. By that time, however, she was so uncomfortable that she had to go home. All night her eyes pained her horribly. In the morning she was unable to open them. They were draining profusely and her face, especially around the eyes, was badly swollen. An eye specialist was called, but he had never encountered a case of the kind before. When her eyes did not respond to treatment—and he did everything for her that was humanly possible—he had his patient removed to the Miami Valley Hospital where several eye specialists saw her in consultation.

A large ulcer and several smaller ones developed on each eye. The pain became so agonizing and the general bodily discomfort so great that none of the many sedatives used was successful in procuring more than fifteen minutes to two hours of rest a night. The nurse's laconic bedside notes during those long, slow weeks of torture, even after she had returned to her home, barely sketch the anguish that Mrs. Brown was going through: "Severe pain. . . . Severe burning sensation. . . . Rash on arms has spread to large area. . . . Severe pains in head and around right eye. . . . Severe pain in left eye and glands of neck. . . . Appetite poor. . . . Awakened by severe pain around eyes. . . . Pain in head and back of neck. . . . Pt. says she is very discouraged about eyes. . . . Constant pain in left eye and gland. . . . Shooting pain in right eye. Lids seem more swollen. Very uncomfortable night. . . . Constant drainage from both eyes. Very nervous. Sharp pain in right eye. . . . Unable to sleep. . . . Constant sloughing from right eye. Cornea sloughed out. . . . Constant pain. . . . Patient did not sleep after 3 A. M. . . ." And thus it went on for weeks—day after day, night after night, of intense physical suffering

This is the manufacturer's version of the effect of this aniline eyelash dye.

The New and Improved Eye-Brow and Eye-Lash Dye

LASH-LURE

Total blindness was its actual effect in at least one instance.

Before

After

Radiates Personality

The first of these photographs is the one Hazel Fay "Brown" had taken on May 17, 1933, about an hour before *Lash-Lure* was applied to her eyelashes. The second, taken during the following month, shows the destruction of her eyeballs by this poisonous "beautifier." She is now totally blind with no hope of recovery.

made the more unbearable by fear that she would never see again. Not until the first of August, more than two months after her visit to the beauty shop, was Mrs. Brown able to walk out on the veranda with the nurse at her elbow.

Altogether, eight specialists worked on the case with untiring devotion—matched by the patient's wonderful fortitude and gallant spirit; but though the chemical nature of the dye was readily analyzed, no antidote for the poison was known nor has even yet been discovered. Corneal ulcerations in both eyes resulted in the sloughing off of the corneae and degeneration of the eyeballs, a condition which several operations have failed to help. Mrs. Brown's laughing blue eyes have been blinded forever.

The cosmetic which destroyed Mrs. Brown's sight was *Lash-Lure*, a synthetic aniline dye belonging to the paraphenylenediamine group, and put out by the Lash-Lure Laboratories, Incorporated, of Los Angeles. This concern was operated by a pair who used to run a gents' furnishing business in Astoria, Oregon, until 1925, when they were burned out. Coming to Los Angeles in 1930, they set up the Dellar School of Beauty Culture. The Lash-Lure Company was incorporated in 1932. Its president was Sanford M. Kolmetz, who also conducted the National Permanent Wave Company and the Cooperative Beauty Shop, Ltd. Associated with him as the secretary-treasurer of the new firm was his brother-in-law, Isaac Dellar, a graduate of the University of Oregon Medical School. A third member of the firm, George Eilert, operated the Lilac Beauty Parlor Supply Company. With a total investment of less than \$1000, they apparently ran the Lash-Lure business as a sideline.

In the spring of 1934, at the very time opponents of the Copeland Bill were fighting tooth and nail to keep an effective measure for the control of dangerous products from being reported out of Committee, *Lash-Lure* claimed another victim. This time it was a Florida woman, 52 years old, who had the dye applied to her right eyebrow and lashes by her own daughter, a beauty-parlor operator. The adjacent tissues began to swell and burn within thirty seconds, so that it was thought best

not to treat the other side. Eight days later, after a violent illness, the woman was dead.

Just how many women have been injured by the use of this preparation there is no way of knowing; but the *Journal of the American Medical Association* has reported at least seventeen authentic cases, and there have no doubt been many others, for the firm has settled a number of what it termed "nuisance" cases for small sums. Still other claims for damages have been paid by the beauty shops or their insurance companies (if their policies would cover such cases!) But, what compensation is money—even if these women can get any—for the loss of their sight and the anguish they have undergone?

When a San Francisco woman suffered "a severe case of dermatitis" following the use of *Inecto Rapid Notox*, a hair dye containing—at that time, at least—an aniline ingredient similar to that of *Lash-Lure*, Dr. Ralph Evans of the Inecto Company admitted:

"My attitude in such a case as this is that we can never recompense such a person for the suffering which she has undergone; that is, on the face of it, impossible. Consequently we must disregard that feature as much as possible and certainly minimize it, stressing our settlement efforts on the basis of actual expenses involved."

We are indebted to Dr. Evans—or to the company of which he is the technical director—for some interesting facts about "The Criminal Ingredient," as the *Inecto* advertisements used to call paraphenylenediamine. The original *Inecto*, admittedly a paraphenylenediamine preparation, seems to have started up in England in 1913, at which time the name was registered also in the United States Patent Office. The first English firm was liquidated in 1918, and a second company suffered a like fate. Meanwhile, Philip W. Ducker, promoter of the product, had invaded the United States, heading *Inecto*, Incorporated, a New York concern formed in 1919. This, too, dissolved, first taking the precaution, however, of selling its assets to *Inecto*,

Incorporated, of Delaware, a new company. Rumors of serious injuries from the use of *Inecto* had been rife in the trade for some time before the name changed ownership. The Federal Trade Commission took cognizance of the product by issuing a complaint against the New York company; but the complaint was dismissed—a year later—because of the dissolution of that concern. The preparation put out by the new company was known, significantly—or so it was hoped—as *Notox*, and also as *Inecto Rapid Notox*. Hardly had the Delaware corporation begun to function than a rival appeared in the field—the Rapidol Company, operated by the former sponsors of *Inecto*, who had agreed to get out of the hair-dye business and stay out.

This was too much. Immediately a trade war ensued which, whatever its effect on the combatants, should have been revealing to the users of hair dyes. While the Rapidol Company issued a booklet defending the use of paraphenylenediamine, *Inecto* undertook to show up its dangerous consequences. From the *Inecto* advertisements we learn that “a single application” of this coal tar derivative “has been enough for action.” “If the dye contains paraphenylenediamine, ‘The Criminal Ingredient,’ it will poison—whether a test is made before or not—one out of every 120 persons. The degree of poisoning is such as to undermine the constitution.” “And there is no way of foretelling whom it will poison.” It is “frequently unforeseeably poisonous and occasionally fatally so.” It “always carries a potential injury.” Among the specific injuries recorded in 370 cases where a hair dye containing “The Criminal Ingredient” was used were “. . . swelling of the face, eyelids, and larynx, inflammation of the skin with cracking, blistered scalp, impaired eyesight, swelling of the head and limbs, spreading of infection and eruption over entire body, hospitalization with incapacity for long periods, permanent blindness developing . . . patient expected to die. . . .” Just where the *Inecto* Company got hold of all these cases, the record does not show; they may have been among the “assets” purchased from the original *Inecto* Company. At all events, we learn that “long application can lead to chronic poisoning effects . . . sometimes accompanied

by cramps, diarrhoea, hardening of the arteries and shrinking of the kidneys."

An interesting piece of information brought out during the Federal Trade Commission's investigation of *Inecto Rapid Notox* was the fact that although this hair dye was represented as a patented discovery of Ralph L. Evans, the patent registered in his name covered a paraphenylenediamine formula. However, competent chemists testified that analysis of *Inecto Rapid Notox* revealed the presence, not of "The Criminal Ingredient" itself, but of another coal-tar derivative enough like it to be its Siamese Twin—paratoluylenediamine. Indeed, Dr. Evans himself agreed that there was little to choose between them so far as toxic effects were concerned.

The manufacturer of *Inecto* indignantly disclaims the use of any "Criminal Ingredient," though analysis of current samples nevertheless shows it to be an amino compound; as such, it is compelled in New York City to carry a special warning label. The directions, which you ordinarily find in the sealed package after you have bought *Inecto*, carry this significant sentence, printed in capitals just like this:

"PERSONS WHO ARE KNOWN TO HAVE A PRO-
NOUNCED IDIOSYNCRASY TO SKIN OR SCALP
DISEASES, OR WHO HAVE AT THE TIME ANY
SCRATCH OR ABRASION OF THE SCALP, SHOULD
APPLY NO FORM OF HAIR COLORING."

While *Inecto* is probably somewhat less toxic than it used to be, the Federal Trade Commission still refuses to let it be advertised as "safe."

Whether advertised or not, the synthetic organic hair dyes and eyelash cosmetics continue to be sold with almost no restrictions, for only a few cities and States can prohibit them under local health ordinances. While it is true that hundreds of individuals can use these preparations safely, it is equally true that others may employ them to their irreparable harm. But no matter how many are blinded, maimed or disfigured, the Federal Government can do little or nothing to protect the

susceptibles. Often enough these people are unable to look out for themselves. Indeed, they may not be aware that they are hypersensitive. Preliminary tests are by no means always advised by the manufacturer, or unfailingly carried out by the operator. And certainly skillful application is not to be counted on in every instance. The manufacturer of *Inecto*, however, objects to prohibiting the use of poisons in cosmetics. At the hearings on the proposed new food-and-drugs law, when the provisions designed to protect the women and girls of this country from experiences like Mrs. Brown's were under discussion, Dr. Evans said frankly:

"I believe that a very fair proportion of people injured by cosmetics are amply compensated for the temporary injury through claims for damages."

Like Paul Y. Anderson, writing in the *Nation*, "Somehow, I doubt whether this argument would convince the girl who lost her eyes, even if it were read to her."

When the facts about *Lash-Lure* came to light, the Food and Drug Administration was powerless under the Food and Drugs Act to seize the product and get it off the market, since the labeling bore no remedial claims for disease. But the Administration did attempt to warn the public against this caustic "beautifier" capable of burning the very eyeballs out of your head. A good many newspapers, be it said to their credit, published the warning forthwith—though in Buffalo, despite the urging of the city health officer and the local Food and Drug chief, not a paper in the city would print it.

And what did the manufacturer do? Well, he arranged to have prospective victims sign the little document on the facing page before the dye was applied to their lashes:

While notoriety and damage suits have driven the *Lash-Lure* concern into hiding, its sight-destroying cosmetic is still being sold. "Carl K. Stein," the former manager, who is supposed to be touring the country as a camera salesman, is shipping the stuff out—at \$12 a gross—from another Los Angeles address. (The retail package containing six units sells for \$1.)

This villainous product is prominently displayed in the window of a beauty "shoppe" here in Washington, even as I write. The proprietor frankly admits that as long as her patrons will take the chance, she will continue to use the poison on their eyes, regardless. She makes no tests of any sort beforehand, nor does she require the waiver to be signed unless you buy the stuff for home consumption. But she "guarantees" results—"If the job's not right, I'll do it over!"

The
(Insert name of beauty shop)

Guarantees to Dye the Eyelashes and Eyebrows of

Name
Street
City

Being fully aware that some people are sensitive to dyes because of their physical condition which causes a dermatitis or other injury, I am willing to and do assume the risk involved in this treatment, and I agree to make no claim against the beauty shop or Lash-Lure Research Laboratories, Inc., and to hold them harmless in the event of the occurrence of such possible consequences.

I have read the foregoing and understand the contents thereof.

Signed
(Customer)

Dated
(This Waiver when signed to be retained by Beauty Shop)

Hers is not the only shop to carry *Lash-Lure*; there are plenty of others—all over the country. Unless local health authorities, as in Chicago and New York, outlaw the dye, you may expect to hear of more tragedies like Mrs. Brown's.

Less dramatic in their harmful effects, but more insidious since their poisons tend to accumulate in the system, are the hair dyes containing metallic salts. Those with lead salts probably affect the most people, for the metal is sufficiently poisonous on its own account to require no predisposition on the part

of its victims. Lead is absorbed slowly, but may result in chronic lead poisoning—"plumbism." If you want to know how unpleasant that can be, ask a plumber or house painter. A few of the symptoms of this serious condition are sore gums, "lead-line" over the teeth, abdominal cramps, wrist-drop, anemia, painful joints, defective vision, and sometimes convulsions or paralysis—even death. The Bureau of Investigation of the American Medical Association believes that:

"It is doubtful if the lead-salt type of hair dye, of which there are several on the market, has any legitimate excuse for being. Such dyes act slowly and have to be applied many times in order that the thin deposit that they lay on the hair may become dense enough to produce the color desired. Most of the lead-salt type of dyes are sold under the claim that they are 'hair color restorers,' a falsehood which could not appear on the trade package were it not for the fact that hair dyes, unfortunately, do not come within the purview of the National Food and Drugs Act."

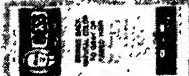
The selling talk for these preparations may also inform you that the dye will banish dandruff, stop falling hair, relieve itching scalp, and be of value as a general hair tonic—or anything else the manufacturer thinks he can get away with. Indeed, such claims are so prevalent, the manufacturer of *Kolor-Bak* assured the Federal Trade Commission, that the public is no longer fooled by them and therefore they cannot be fraudulent. They are unwise, however, for they make the product subject to the Food and Drugs Act.

Continued use of hair dyes containing silver salts may result—although the Bureau of Investigation says the possibility is remote—in argyria, a disfiguring condition in which there is a permanent bluish-black discoloration of the skin and mucous membranes. It is due, not to local action, but to systemic absorption of the silver. These dyes work on the same principle as photography, the silver salts reacting with a developer (which is all the so-called "preparatory powder" ever is) to turn a dark color when exposed to light.

COSMETICS CONTAINING LEAD

Lead is absorbed slowly, but accumulates in the system, resulting in chronic lead poisoning manifested by muscular weakness, mental depression, abdominal cramps, and sometimes cerebral hemorrhage.

Local injury to the skin and scalp may also result.



WHITENANCE AND LUSTER
"GOS" restores the natural color of the hair to its original color.



Many widely sold hair dyes contain lead, one of the deadliest of the metallic poisons. Their claim that through slow action they "restore" the natural color of the hair is credited by the user because so many applications are needed to deposit enough of the dye to give the desired color. (Reproduction from a Government exhibit.)

Sometimes silver nitrate or other metallic salts, such as copper or iron sulphates, are used with pyrogallol in hair dyes. Pyrogallol is said to irritate one out of every hundred skins. When it is absorbed, it may lead to serious kidney inflammation, or, in extreme cases, to convulsions and death. The fatal poisoning may set in suddenly even after this "vegetable" ingredient has been used for some time with no apparent ill effects, and is applied then to the unbroken skin.

But harmful as some hair dyes may be, they are not the only dangerous cosmetics. Hair tonics may be injurious, too—as well as a downright waste of money. A frequent ingredient is arsenic, which has a slow, mild corrosive action on the skin and scalp. Acute or chronic systemic poisoning may result from absorption of arsenic through the unbroken skin. The acute form may appear suddenly with violent and painful stomach and intestinal inflammation. Chronic arsenic poisoning is more likely to develop slowly and insidiously, producing peculiar skin changes, generally impaired nutrition, and severe nervous manifestations, with slow atrophy of the muscles and disturbance and paralysis of sensation.

Quinine and resorcin, also found in hair tonics, are capable of causing all the symptoms of anaphylactic shock in sensitive persons.

The criminal cosmetics for use on the skin are those containing mercury—the "whiteners" and freckle removers, which may not stop with the freckles, but burn right down to the second layer of skin, causing terrible blisters. Mercury is readily absorbed through the intact skin and mucous membranes. The kidneys are early involved in cases of mercury poisoning; the mouth and gums become inflamed and ulcerated, the teeth drop out, and the jawbone begins to mortify. Severe cases are nearly always fatal.

In the *Journal of the American Medical Association* a few years ago, Dr. J. B. Blashill of Detroit reported the case of "a Roumanian woman, without children" whose husband thought her face was dirty. But the trouble was that she had been using *Othine* for a year and a half, rubbing it thoroughly

into her face and neck every night before she went to bed, and leaving it on all night. Meanwhile, her face was getting more and more discolored—turning a sort of slaty blue gray—until even the neighbors ragged her about it. Though she was naturally swarthy, the doctor in the clinic was struck by the dark, dirty appearance of her face the moment he saw her in the doorway. "At a distance, her face and neck did look dirty." When the doctors removed a mole from her neck and studied the surrounding tissue, they found the mercury was deeply imbedded in the inner layers of her skin. Local treatment was of slight value, for it was almost impossible to get at the mercury.

Such discoloration seems to depend somewhat on susceptibility—and on the manner and degree of application, for not all users of mercury preparations are affected in this way. Sometimes the discoloration does not turn up until a long time after the cosmetic was first used. In one case investigated by the Food and Drug Administration, a Philadelphia woman developed dark rings around her eyes and one like a necklace around her throat after using *Gouraud's Oriental Cream* for several years. Two years later, all her teeth loosened up and her gums, now bluish black in color, became very sensitive. When her physician, suspicious of metallic poisoning, had the cream analyzed, it proved to be a suspension of calomel in water. And her dentist, who had had a good deal of experience with mercury poisoning in an industrial clinic, agreed that there was no doubt about the diagnosis.

When Dr. Haven Emerson, one of the most distinguished health authorities in the United States, testified at the hearings on the Copeland Food and Drugs Bill in December, 1933, he had this to say about cosmetics:

"As President of the Public Health Association and a member of the Public Health Committee of the Academy [of Medicine, New York], I advise you that we are constantly observing at the medical centers in New York, through the Department of Dermatology and Medicine, the victims of the injudicious use of self-beautification efforts who come to us with many

pathological conditions: Patients with deformed faces, patients with poisoned bodies, patients suffering at long time-distance from the time when they used their medications from chronic poisoning, which they could not themselves suspect from their own symptoms at the time of using the cosmetic. A matter which I think should be emphasized in the discussion of this bill is the chronicity, the long interval between the time of the application of these preparations and the beginning of the symptoms, which makes it impossible for the individual consumers to protect themselves as they would against some violent irritant applied to the skin. Lead, silver, and arsenic are common types of chronic poisoning by cosmetics."

It is a curious fact that an ancient method of removing hair from hides in the making of leather has been responsible for another group of cosmetics harmful to many skins. The time-honored chemical for de-hairing hides was lime, which the Orientals centuries ago learned to combine with the alkaline sulphides for removing unwanted human hair. Surprisingly enough, "Here's That 'New' Way of Removing Arm and Leg Hair" still being used today! Barium or sodium sulphide is sometimes substituted for quicklime in modern depilatories. But even the most "exquisite" of these highly scented preparations may irritate a sensitive skin. So many people have a definite idiosyncrasy for them that many cosmetic houses won't be bothered to make them for fear of damage suits. None of them, whatever the advertisements say, will remove hair permanently. The hair is most readily attacked at the surface of the skin, where it is softest, and simply breaks off there when treated with these sulphides. But the root is scarcely affected and the hair grows out again.

Not even the wax depilatories can truthfully be said to banish superfluous hair forever. Their continued use tends to make the recurrent growth finer and less conspicuous, that is all.

To thousands, it seemed indeed the "blessing for which women have prayed for centuries" when Kora M. Lublin announced her new method of "devitalizing the hair follicle so that it can no longer produce hair." For over forty years, Mrs.

Lublin confessed, she had been trying to find some way of overcoming the superfluous hair on her own face and body. At last through the work of an eminent French chemist and her own willingness to be experimented on,

“Now, we have KOREMLU CREAM, ‘Nature’s rival,’ that creates baldness *only* where it is applied and just where you want it, on your face, arms or any part of the body of either men or women. It is applied at night, the same as any good cold cream and works while you sleep, slowly but surely, and above all *safely*. It causes the follicle to relax and loosen its grasp on the hair. When the follicle is once devitalized, no more hair can ever grow in that spot again. . . . It is unlike anything ever used before and offers for the first time real freedom from superfluous hair.”

Koremlu really did seem different. For one thing, you had to pull out the hair in addition to using the cream, so that nothing would “obstruct its journey to the root.” You continued to pull out the hair and rub in the cream for a year. After that, there would be no more hair; Mrs. Lublin guaranteed it. But you had to use lots of cream (at five dollars an ounce), and no matter how discouraged you became, you could not get your money back before the year was up. It would not be fair to Mrs. Lublin! Another thing, if you purchased *Koremlu* through a store, you had to save the empty jars to prove your claim. (Ten dollars for three ounces was a little cheaper, if you insisted upon being economical in such an important matter.) And of course, you didn’t have to stop using the cream just because the hair was gone——

“Many ladies continue its use long after the hair growth has been removed, because of its beneficial effect on the skin.”

Kora Lublin’s story, as she revealed it to an inspector of the Food and Drug Administration, sheds an interesting light on the way some of our manufacturers operate—for her methods were not so unusual as her product. Though the publicity given poisonous cosmetics in the last year or two has put some of

the worst offenders out of business *for the time being*, or caused them to change their formulas temporarily, there is no way of knowing when they will start up again. Meanwhile, it will be instructive to see how they work their rackets.

In the old days when she ran a beauty parlor in New York, Mrs. Lublin said, she had a habit of collecting formulas for all sorts of beauty preparations. A Hungarian girl of her acquaintance, who was returning to the old country, asked for some of them to take back with her. Flipping through the pages of her notebook, Mrs. Lublin noticed a clipping about thallium acetate as a depilatory. This, she claimed, was where she first got the idea of using the rat poison in a beauty cream; for the article had been written by Sabouraud, the distinguished French authority on diseases of the scalp and hair. True enough, several years before, Sabouraud had worked out a prescription calling for not more than 1 per cent. of thallium acetate as a treatment for certain scalp diseases where removal of the hair is indicated. But the poisonous thallium acetate caused so many accidents that Sabouraud stopped using the ointment himself and urged others to be cautious about it. Mrs. Lublin seems to have been troubled by no such scruples. Seizing upon the idea of the formula, she went into a huddle with her family doctor and a pharmacist in Nauheim's. *Koremlu* was the result.

When the small percentage of thallium acetate in the first batches of *Koremlu* failed to get desired results, Mrs. Lublin increased the dose to $3\frac{1}{4}$ per cent. Her method of controlling the amount would have made a scientist tear his hair. Mrs. Lublin herself would take out two of the original, unopened 100-gram jars of thallium acetate and give them to one of the two girls who made the cream for her. These two jars were then mixed with a "base" to make 150 jars of *Koremlu*. By thus using only two jars of thallium acetate to the batch, she reasoned that an excess of the poison could not be used, though she employed no safeguards against uneven mixing. Not until adverse criticisms of *Koremlu* began to roll in did she have a chemical analysis made. Then her advertising agent called in

the Pease Laboratories, which reported 5 per cent. of thallium acetate as compared with the 7 per cent. found by the American Medical Association. Such variations are hardly surprising in view of the slapstick method of manufacture. But they may explain why some women who used several jars—probably of plain, if high-priced—grease escaped injury, while others getting only one jar—but that containing the poison—almost lost their lives.

Koremlu, Inc., was launched in April, 1930, with the John O. Powers Company putting on an advertising campaign for the product, which was now being sold through some of the best department stores in the country.

On the basis of ingredients, the Department of Health in New York City figured that the cost of production for a \$10 jar of *Koremlu* was 35 cents. Kora Lublin, however, insisted that it cost her \$1.25 to make a one-ounce jar to sell for \$5.00. She accounted for the spread in this way:

Percentage to salesmen	15 p.c.
Advertising costs . . . . .	.25 p.c.
Store's profit . . . . .	.40 p.c.
Koremlu, Inc. profit	balance

She had still other explanations of the price. One was her desire to have the preparation used sparingly, in order to avoid possible harm; another was her hope of preventing its use by minors, who might be careless with it. Nevertheless, her booklet was recommending that *Koremlu* be used as a base for powder during the day and plastered on generously at night—"because it gives 24 hours of treatment instead of 12 hours." And of course you had to use a lot of the stuff, too, under the terms of her guarantee.

Koremlu was booming. Make no mistake about that. In less than a year, 120,000 jars were sold through department stores alone. And this, despite the fact that the Department of Agriculture and the American Medical Association were telling the stores which sold it and the publications which carried its adver-

tising that *Koremlu* was dangerous. To counteract such propaganda (inspired, Mrs. Lublin was certain, by her jealous competitors), she enlisted the services of the Pease Laboratories in New York and of Curt P. Wimmer of the College of Pharmacy, Columbia University, to whitewash her product. They did such a good job of it that in January, 1931, the postman was bringing her letters like this one from the buyer for one of the leading department stores in the Middle West:

"We now realize that we acted rather hastily in taking *Koremlu* off sale and that we should have written to you for further information regarding the report we received from the Department of Agriculture.

"You were correct in saying that we were not familiar with Thallium but inasmuch as the report which we received said that it was injurious to health we took *Koremlu* off sale until we heard from you. . . .

"We regretted taking *Koremlu* off sale for the short time we did, as it was selling very well, and we were enjoying a generous profit. Upon receipt of your letter we immediately put same on sale."

All this time, however, hospitals throughout the country had been receiving patients suffering from a strange new malady that paralyzed their lower limbs, doubled up their bodies with intense abdominal pain and constant nausea, made breathing difficult, blinded their eyes and loosened all of their hair. At the Mayo Clinic in Rochester, Minnesota, the disease was recognized as thallium poisoning. Even physicians who recognized it had difficulty in tracing the cause or controlling the outcome, for few women connected their symptoms with the costly cream they had been using. Apparently well on the road to recovery, they would go back to their homes, only to return to the hospital in a short time with recurrent symptoms. All unsuspecting, they had been using *Koremlu* again!

This is how one of *Koremlu's* victims described her experience to a woman she knew would be sympathetic:

"DEAR MRS. ROOSEVELT

"I have been informed by a number of people that you are interested in this fight against poison cosmetics and if you don't happen to be the one that this letter should be sent to I am sure that you will be kind enough to see that it reaches the right person as I hear this is to come before the next Congress.

"I am sure that you are a very busy woman and I will make my story as brief as possible and you will have to excuse all mistakes as I am unable to read what I have written.

"In March of 1930 I started using Koremlu Cream and a few weeks later I became very ill from then until now which is almost four years I have never been well all as the result of using this cream.

"From April 1930 I suffered all kinds of pain had teeth removed and two other small operations had paralyzed feet unable to walk all of this time I was doctoring with the very best doctors in Indianapolis but they were unable to find out what was wrong with me.

"In April 1931 I started loosing my eyesight. I was then sent to Mayo Clinic at Rochester Minn. in hopes that they might find what was wrong with me.

"It was there discovered that I was suffering from Thallium poisoning from the use of Koremlu Cream.

"Since then I have been every place that I have thought there might be a doctor who might be able to help me.

"Every doctor I go to tells me the same thing I have Retrobulbar Neuritis with Optic Nerve Atrophy for which there is no cure.

"I am sure you understand now why I am writing this letter in hopes that it may be the means of helping some one else.

"I was a girl twenty six years old when I started using this cream working every day and that was my greatest pleasure in life my health and being able to work and earn my own living and now I will never work again.

"I could go on and on writing what this has meant and will mean in all of the years to come to me but I will sum it all in a few words by saying it took from me all I had that made life worth while My eyes.

"There are laws to punish people for committing murders and it seems as though there could be something to prevent

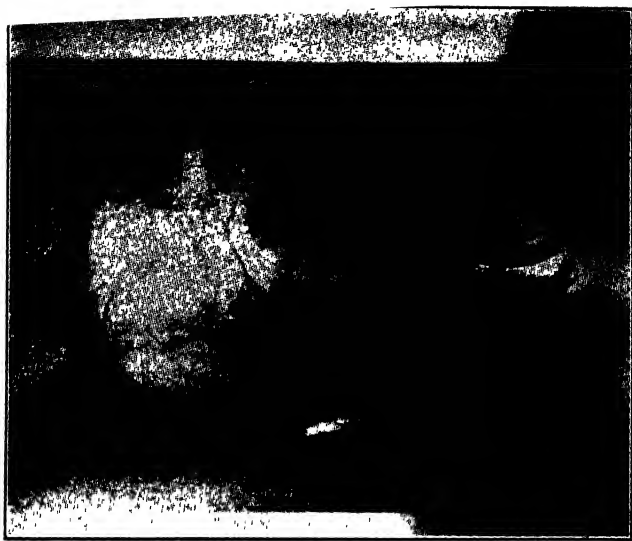
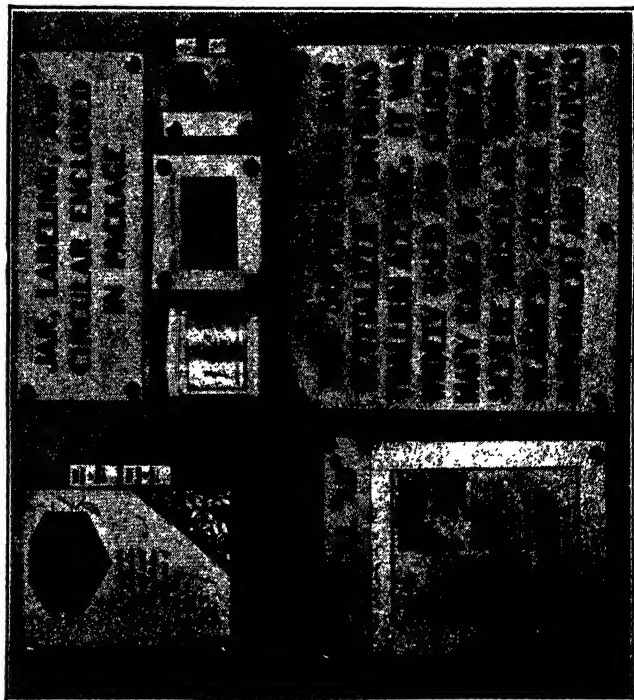
carelessness that wrecks lives and makes people invalids all of their remaining days, which is far worse than death.

"Mrs. Roosevelt please don't think I have grown bitter and sour on life because I have not but I have suffered so much and I just want to help others from having the same thing happen in their lives."

If, as some people profess to believe, these buccaneers may be persuaded voluntarily to steer their course by the public interest, it will be instructive to consider how persistently Kora Lublin sailed in the face of adverse winds.

She had been anxious, you remember, that *Koremlu* be used "sparingly"—and indeed her first circular had advised exactly that. Both her physician and the Nauheim pharmacist had warned her that thallium would be dangerous if used indiscriminately. But the profits began to roll in! Whether her advertising agent reminded her that sparing use brings slow "repeats" or whether she thought of it herself, in her revised booklet that single word of caution was left out—and the suggestion of *Koremlu* as a 24-hour treatment was put in.

Soon a Baltimore girl was seeking compensation for injuries; the firm's physician held there was no basis for the suit. Then an El Paso girl demanded damages and got \$900—it was cheaper to pay than to investigate her case at that distance. The wife of a physician—in nearby Boston—was refused \$500. Medical journals, particularly that of the American Medical Association, were reporting case after case of injury. The Food and Drug Administration, though it had no legal authority to stop the sale of *Koremlu*, nevertheless warned against the product, as did also the Better Business Bureaus. Advertising copy was refused by one publication after another, and the better stores were refusing to sell the preparation. While New York City permitted its sale "for external use only," San Francisco's intrepid Dr. Geiger forbade it altogether. When Colorado ordered the product off the shelves, Kora Lublin wrote a saucy letter to S. H. Loeb, the State Food and Drug Commissioner (May 10, 1932):



This 39-year-old woman lost all the hair on her head when she applied *Koremu*, a poisonous depilatory for which she had paid \$10 a jar, to the superfluous growth on her legs. (Reproduction from a Government exhibit.)

"We object and protest against your statement that you have a serious case in your city caused by the use of our cream. We call your attention to the fact that it would be an impossibility for anybody using a cold cream containing 3.75% Thallium Acetate, externally on a healthy skin as directed on our labels and literature, to be harmed, and we protest against your statement that our product will not be permitted to be sold in your state. . . .

"We question your authority to do these things and we protest against your doing them and we will take such action legally against your Board, you personally, every individual member personally who is a party to these acts on your part, and such further relief as we may be advised by counsel is our right to demand."

But Mr. Loeb was not in the least intimidated by such threats.

They were, after all, just so much bluff. By July, Mrs. Lublin was no longer able to balance her books. With less than \$3 in assets, so she claimed, she found that her liabilities, consisting chiefly of unsettled claims for damages, amounted to more than \$2,500,000. She went into bankruptcy. That was the end of any hope her victims might have had of ever making her pay for the mischief she had caused. But was it the last of her infamous "beautifier"?

Alas, there is no way of knowing how much *Koremlu* is still scattered around the country, still being used by women with no suspicion of the perils that lurk in that innocent-looking little jar with its chaste silver label. Not so long ago, an inspector of the Food and Drug Administration interviewed a prominent Southern physician who was still treating a recent victim of this rat-poison depilatory. His patient first came to see him, the doctor said, more than a year after *Koremlu* had supposedly disappeared from the market. She appeared to be in good health at that time, and said she felt all right except for a slight numbness in her feet and legs; that bothered her. Somebody advised her to try Turkish baths. Coming home on the streetcar after one of the baths, she found herself unable to

alight. She had to be assisted from the car, and her family came with an automobile to take her the rest of the way home.

"Dr. Long was called in at the time and he visited her at home. Later, several other physicians were called in and some diagnosed the trouble as grippe. She was paralyzed and later could retain nothing in the stomach because of constant vomiting. Dr. Long stated that once during the most serious stage of her attack, he was called to her home where there were already two physicians and that for a time it appeared she was dead. This severe condition lasted for several weeks; about the third or fourth week of the attack she developed eye symptoms and disturbed vision. Late in the attack she had a Stomatitis and all the hair on her head came out, just like you lifted off a wig. Dr. Long stated they couldn't get the history of the case until she began to recover and then she reluctantly told them that she had purchased two jars of a depilatory cream at \$10.00 a jar . . . several months before and had used one jar and started on the second shortly before she became stricken. She apparently did not want her family and friends to know that she was buying cream at \$10.00 a jar because they are in rather modest circumstances. . . . Miss A—— informed Dr. Long where she had hidden the second jar . . . and he recovered it. Most of the label had been scraped off, but it was possible to make out the word 'KOREMLU.' "

It is no less than the truth that preparations like *Lash-Lure*, *Koremlu*, *Othine*, and all the other poisonous cosmetics that ravage their users—that paralyze, blind and disfigure them, and in short have no warrant for being—represent the exception and not the rule. Often individuals sincerely believe they have been injured by some beauty preparation when they are merely sensitive to the aromatic oil used to perfume it; for perfumes, oddly enough, can be very irritating and may even—when exposed to sunlight—discolor the skin. In other cases the seeming hurt may be due to an allergy to some ordinarily harmless ingredient, such as rice flour or orris root in face powders or karaya gum in wave-set lotions. Orris root is found not only in all sorts of powders (sachets are heavy with it), but in dry

shampoos, dentifrices, soaps, perfumes, and for the matter of that, in foods. But whatever could have been said against cosmetics fifteen or twenty years ago, the majority of them today carry no health hazard. Their prices may often be ridiculous and their advertising fantastic; the products themselves are safe.

Most cosmetic advertising, however, is sheer bubble-dust. The most preposterous claims are made for essentially simple preparations that usually do no more than soften and lubricate the skin—a sufficiently worthy office in itself to need no glorification. Yet the advertisements continue to talk about “nourishing” the skin and opening and shutting the pores as if they had zippers on them. Where a few years ago the promise to “re-make your complexion in 30 minutes” was enough to command a price of three or four dollars for ten cents’ worth of fullers’ earth and witch hazel, today the great “rejuvenator” is turtle oil. Because turtles are supposed to attain a ripe old age, some bright manufacturer (or maybe it was only his copywriter) advanced the theory that “hormones” in turtle oil have magic rejuvenating properties. Turtle oil is also credited with vitamin activity—though our old friend from the cod liver would be just as smelly and effective, and a whole lot cheaper. Most of the oil used for cosmetic purposes comes from the green turtle, such cream being in some instances a by-product of the popular soup. This reptile is a vegetarian, fortunately for Milady, and therefore his oil does not smell so fishy unless allowed to stand. A turtle weighing four hundred pounds will furnish fifteen to twenty-five pounds of oil (though few green turtles of that size are found today.) With turtles selling for twenty-five to thirty cents a pound on the claw, you can figure out for yourself whether or not you are getting the genuine turtle oil at the price you pay for your cream.

Honest cosmetics serve a useful and legitimate purpose. The demand for them is secure. But while turtle oil and avocado oil (which is now coming into vogue) and all the other exotic and beguiling, if expensive, fads may be dangerous only to the pocketbook, those villainous rarities like *Lash-Lure* and

Koremlu, as well as some of the common preparations for the hair, are another matter. To say to you, however, that certain preparations are all right for you to buy, that others are dangerous or fraudulent, is not properly the part of private individuals. Rather it is for you to give to your Government the authority—and funds—so to control this vast, and generally reputable, industry that you may go into any shop you please and buy as your own fancy dictates.

In the words of Dr. Arthur J. Cramp, of the Bureau of Investigation of the American Medical Association, who probably knows as much about cosmetics as anybody:

“Most of the concerns that make cosmetics in this country are respectable businesses and while they dispense a tremendous amount of hokum in selling their wares, claims for muscle oils and skin foods and all that sort of tommyrot, at the same time they don’t put out things that are going to do any particular damage. But it is against the scamps of the industry that we need some sort of control and I am hoping that when the proposed new National Food and Drugs act is put into effect, there will be some way of handling the cosmetic industry as well as the food and drugs.”

CHAPTER THREE

Blood Money

TWENTY-TWO years ago, W. B. McClellan lost three or four head of green horses. In consequence, untold numbers of men and women have died needlessly of tuberculosis—while the Federal Government, effectually disarmed by the fraud joker in the Food and Drugs Act, has had to fight a costly and uphill battle trying to save them.

McClellan, you see, ran a livery stable. He also followed the races and at the Reedville track one day "Doc Byrnes"—"I did not know whether he was a human-being doctor or a hoss doctor"—told him about a liniment that might be good for the epizootic young horses get sometimes when not acclimated to new stables. A devil's brew of turpentine, ammonia, eggs and water, it was rubbed on the neck and chest of the ailing horse, provided, of course, the horse would stand for it. McClellan tried it—on his horses, on his landlord, on his landlord's sister, on his bookkeeper and his bookkeeper's daughter, and eventually on all willing and financially able Bostonians. Naming the unholy blistering brew after his wife (aptly enough, the former Miss Burns) and himself, he peddled *B. & M.* from house to house as a remedy for rheumatism at a dollar a bottle.

But the racket looked too promising for him to be allowed to share it only with his landlord, who had been persuaded to put a little money into the venture, especially when he had an ambitious bookkeeper like Frank E. Rollins. Close on seventy now and about to retire as a court reporter, Rollins was looking around for an enterprise worthy of his talents. The job with McClellan was only a sideline but it may have reminded

him of how, as a youth, when he was a bookkeeper for the J. C. Ayer Company of Lowell, he had watched *Ayer's Sarsaparilla* pile up the fortune back of the great American Woolen Company. There was easy money to be made with patent medicines! In hardly more than a year, then, he muscled in and acquired most of the *B. & M.* stock. Under his expert manipulation, an ordinary horse liniment rapidly evolved into a cure for human tuberculosis, pneumonia, flue, peritonitis, cancer, locomotor ataxia, infantile paralysis, amyloid liver, autointoxication, pleurisy, gassed lungs, diabetes, whooping cough, scarlet fever, goitre, diphtheria, varicose veins, sarcoma, mumps, hay fever, asthma, bronchitis, laryngitis, rheumatism, blood poisoning and—to make a clean sweep of it—such odds and ends as coughs, colds, catarrh, swellings, sprains, stiff joints, tender feet, burns, scalds and insect bites.

During the first few years the sale of the liniment was confined almost entirely to Boston. Interstate traffic did not develop until Rollins paid a visit to his old home town, Tilton, N. H., where he found a disciple in young Burton Barnard. This youth, so he testified himself, was cured of tuberculosis by using *B. & M.* twice a day:

“I began to break out with pimples all over my chest and back. They discharged matter until my lungs were clear and the poison was eliminated. At the end of ten weeks my lungs were free. . . . I would be glad to answer any letters about myself and how to use the remedy if anyone would care to write to me.”

So enthusiastic was Burton Barnard over *B. & M.* that he became the local agent in Tilton, thus bringing about interstate shipments of the product which were not without historical consequence. For in 1919 the old Bureau of Chemistry, the Federal agency then charged with the enforcement of the Food and Drugs Act, swooped down upon Tilton and Concord to seize the liniment as a misbranded drug in interstate commerce.

But before this case came to trial, an action was brought against the manufacturer by Dr. William C. Woodward, mili-

tant Commissioner of Health in Boston, charging violation of the so-called "Blue-Sky" false advertising law on thirty-five counts. Paul Mulino of Boston and Mrs. Edith Merchant of Ashland, N. H. (get out your notebook and put her name down, for it is one to remember), both testified that the horse liniment had cured them of tuberculosis. This challenge Dr. Woodward promptly met by offering to have them examined by officials of the Board of Health and x-rayed at the City hospital. Thus, he was able to show the court—and the flabbergasted Mulino—that, far from being cured, the latter was actually in the final stages of the disease (he died not long after the trial) and Mrs. Merchant was still tubercular! Since he did not have to prove fraud, Dr. Woodward succeeded in getting a verdict of guilty against Rollins on two counts. The penalty, it might be added, was a fine of ten dollars. Reviewing the case many years later, the *Journal of the American Medical Association* pointed out that:

"To the best of our knowledge, this is the only case on record in which a 'patent medicine' exploiter has been found guilty under a state law governing fraudulent advertising—although every state has such a law and such laws are probably violated every day of the year."

The action brought by the "U. S. vs. Eleven Packages of B. & M. External Remedy, A New Chemical Compound" was tried in Concord late in 1922. Rollins, who had admitted at the Boston trial that he had had no medical education, warmly affirmed his belief that *B. & M.* would do everything he claimed for it. He told of doctors (then dead) who had advised him of the effect of *B. & M.* in treating many of the diseases named on the label. Better still, he produced in court a doctor who testified that the liniment would, in his opinion, be of great benefit in tuberculosis of any organ and in pneumonia; that two cases of locomotor ataxia had markedly improved under this treatment; and that *B. & M.* had greatly relieved the pain in a case of cancer. On cross-examination, however, the doctor (whose name is another to keep in mind—

David L. Martin) was not so sure he would use the stuff in treating cancer after all, or even diphtheria and infantile paralysis; and though he "knew" it helped locomotor ataxia, he didn't know how; but he fully agreed with previous witnesses that *B. & M.* used over a diseased organ would outline the affected area with pimples on the skin.

Medical experts had previously testified for the Government that no new esoteric compound would be formed by emulsifying turpentine, ammonia and water with eggs. *B. & M.* would not be absorbed, they said, and would not, as the booklet claimed, "penetrate to nearly every part of the human anatomy directly to the seat of the trouble in any desired quantity." That it might give a lame horse something new to think about was no reason for believing it would cure any of the human ailments for which it was sold; they were quite positive it would not.

After a ten-day recess over Thanksgiving, the attorney for "Eleven Packages of *B. & M.*" (yet another name—Melvin M. Johnson—to set down in your notebook) addressed the jury. The manufacturer, he assured them, published in his labeling only what he had been told and what he firmly believed; Government chemists did not know all there was in *B. & M.*; his client was a philanthropist whose only object was to do good; the remedy was harmless; doctors always disagree; proof is better than theory; and in short the verdict should be given Frank E. Rollins as a birthday present—"for he was seventy-two yesterday."

(And there sat Rollins right in front of them—a jolly, roly-poly little old gentleman, all smiles and benevolence, beaming his good faith upon the twelve men in whose verdict lay the fate, not only of his horse liniment, but of all those men and women who were to die, needlessly, of tuberculosis.)

Unfortunately for the Government—and the public—Fred H. Brown, able United States attorney who had been on the case for two years, was elected Governor of New Hampshire before it came to trial. But the claims made for *B. & M.* were so preposterous that no one anticipated much difficulty in prov-

ing them to be false. As for their fraudulent aspects, surely anyone could see that Rollins had no right not to know whether he was telling the truth or not when he took it upon himself to sell medicine for diseases like tuberculosis and pneumonia.

The Court's charge, however, directed that if the jury found that Rollins honestly believed the statements in his labeling, the verdict must be for him.

It was.

Everyone who had anything to do with controlling traffic in drug products or knew enough about the situation to appraise its significance from the standpoint of public interest was appalled by the verdict. How in the world was any sort of effective regulation possible if the Government was to be obliged to demonstrate the manufacturer's innermost thoughts? How could you prove that Frank Rollins knew in his heart his horse liniment was no cure for tuberculosis when he swore up and down that it was? You might be convinced that he was lying—what could you do to make a jury believe it?

The Bureau of Chemistry set about finding out. Up to now, the Bureau had been fairly successful in the actions brought under the Sherley Amendment to the Food and Drugs Act—which, you remember, forbids false and fraudulent curative claims on drug labels. Once clear of the shallows in their own Department and in Justice, enforcement officials had found it pretty smooth sailing. Now, new shoals and reefs lay ahead, and hidden mines. The pirates of the industry, by nature inclined to sail as close to the wind as possible without capsizing and to take all sorts of chances, had hitherto been fooled by their own failure to recognize the buoys provided by the law; like the Government, they would learn and learn fast.

The National Remedy Company, meanwhile, was busy. Emboldened by his success in court, Rollins lost no time in extending the sale of his liniment from coast to coast, working through agents and scattering his booklets on doorsteps when decent papers refused to run his copy. These booklets, for the next ten years, were to make capital of his court experiences:

"Since B. & M. has been tested in these trials, we submit that the statements which follow regarding its use and the results obtained in the cases described are entitled to careful consideration and full credence. Each of the testimonials has been submitted to the court under oath in one or more of these trials; we reprint them rather than those of later dates not presented to the courts."

A little farther on, "we are told" (an expression Rollins had learned in court and always took good care to use) the disadvantages of submitting to the conventional treatment for tuberculosis at even an ideal sanatorium, where

"—the best result is an 'arrested case'—the germs imprisoned and rendered quiescent until Pneumonia, Influenza, La Grippe, or some severe strain breaks down the calcium wall, setting them free to resume and complete their destructive work. While the germs remain quiescent, the 'arrested case,' exercising great care to avoid exposure or over-exertion, may engage in light employment—if it can be secured—but the fear of a relapse is always present affecting every plan for the future. . . .

"By proper use of B. & M. complete recovery from an early stage of the disease may be expected under home treatment without interruption of the ordinary activities of life and with few, if any, eruptions on the skin. The time required to destroy the germs in advanced cases depends upon the size and character of the infection and the quantity of B. & M. used."

To apply *B. & M.*, you spread yourself out on a flat surface and had someone pour the embrocation over the affected area, two ounces at a time, two or three times a day, being careful not to asphyxiate yourself with the ammonia fumes. The four-ounce bottle costing 75 cents might barely last the day, and sparing use, you were warned, would be of little value; but you could get a dozen of the large-size \$1.25 bottles for \$12.50. It hardly seems necessary to add that Rollins took in \$367,000 in one year.

The action of *B. & M.* as described in the booklets was very interesting. "The only known penetrating germicide," it soaked

right down through the skin, tissues, fluids, bones, to all parts of the body "except, perhaps, the brain," to a depth depending on the amount and concentration used: full strength penetrating twice as far as half-strength, six ounces twice as far as three. Once inside the body, it was simply a matter of chemistry—so many "units" of liniment combining with so many units of poisons of pathogenic germs. These were then "expelled by osmotic pressure," being brought to the surface as eruptions on the skin. You should make no attempt to heal the eruptions, for the poisons had to be eliminated before you could be cured. If your blistered, tortured skin became too sore to be endurable, you could soothe it with Rollins' *Ex-Rem Ointment* (3 oz., 50 cents)—other salves would hinder the absorption of *B. & M.*

Corroboration of these original ideas was set forth in a report by H. Benson Fenwick on the letterhead of the Massachusetts College of Pharmacy, quite without the knowledge or sanction of that institution, and reproduced in one of the 1926 booklets. The college demanded the withdrawal of the booklet, and similar reports in later issues were made on Fenwick's personal stationery.

As evidence of the penetration properties of *B. & M.*, Fenwick submitted the statement that the hydrogen-ion concentration of the blood (that is, its alkalinity) of patients under the *B. & M.* treatment was "materially changed." Even a tyro in bio-chemistry knows that to vary the pH to any considerable degree above 7.43 or below 7.35 is to cause death.

Fenwick also asserted that the phenol coefficient of *B. & M.* was 6.22; in other words, the liniment was 6.22 times more effective than carbolic acid in killing germs. Laboratory analysis, however, showed conclusively that the true figure was only 0.2—about one-fifth the potency of carbolic acid. *B. & M.* therefore fell below the professed standard of strength claimed for it in the labeling, and the Food and Drug Administration, which had recently been set up as a separate unit to administer Dr. Wiley's law, promptly pounced on the product as misbranded. Several seizures were made; whereupon Rollins attempted to get an injunction against the Secretary and other

officials of the Department of Agriculture to prevent further action of the kind. Failing in this move and realizing that the Government unquestionably had him on the phenol coefficient, he withdrew his claim to the seized shipments with fervid promises of booklets that would not violate the law, thus evading the Government's determination to try the fraud issue in court again. It is interesting to note that in his complaint he valued the business and good will of his company at about \$100,000.

About the time these seizures were made, it was discovered that *B. & M.* was violating still another law enforced by the Food and Drug Administration—namely, the new Caustic Poison Act—in that it contained more than 5 per cent. free ammonia and was not labeled "Poison." To avoid such a telltale label, Rollins at once reduced the ammonia content from approximately 9 per cent. to less than the legal limit. This was a decided change from the formula he had revealed at the New Hampshire trial, for the figure to which he had testified then was 36.42 per cent.! Such variations, however, are by no means unusual in the composition of proprietary medicines. Despite the sacredness of their formulas, manufacturers often change them—to evade the "Poison" label, to lower the cost by substituting cheaper ingredients, or even to improve them. This practice, it might be added, is one of their most cogent reasons for opposing the declaration of ingredients on the labels of proprietary medicines. Fear that rivals will learn one's formula is nonsense: if they don't know it already, a good analytical chemist can soon tell them.

Rollins' promised new booklet was, if anything, more fantastic than those which had preceded it. Not only did it contain much of the old "court-tested" material of which he was now so confident, but a mass of new hocus-pocus from the Pease Laboratories calculated to impress and confuse the unsophisticated. (Dr. Pease will be remembered as the gentleman who came so gallantly to the aid of a lady in distress when Kora M. Lublin found herself in difficulties over her rat-poison depilatory.) It might well have bewildered almost anybody, what

with its petri dishes, tabulations and pseudo-scientific jargon, all purporting to show the "Number of Surviving Germs in (a) Circulating Horse Serum and (b) Circulating Beef Broth after Flowing Over Animal Membranes with Undiluted B. & M. on the Opposite Sides of the Same," etc., etc., etc. The animal membrane was goldbeaters' skin and, according to the booklet, a special apparatus had been rigged up to make these experiments, designed to show that *B. & M.* did penetrate the skin and kill germs inside the body. Such "evidence" was no doubt impressive to people with no scientific training or no inclination to think such testimony through.

The booklet also contained this declaration of faith:

"Mr. F. E. Rollins, who controls the manufacture of B. & M. believes that B. & M. applied to the skin and inhaled as directed, actually penetrates to the seat of the infection and kills the germs themselves. He is not a physician or a scientist. He has formed this opinion from his own personal experience on himself, by observation of others, and from what he has been told. We want to say frankly that we are not now able to prove by scientific and legally-competent evidence that this is true. Neither has it been demonstrated to our satisfaction that it is not true. Consequently, while we believe it, yet we desire clearly to be understood as making no claims or representations that B. & M. acts that way."

The Food and Drug Administration, however, refused to be impressed—either by Dr. Pease's imaginative efforts or by Rollins' bland defiance. For several years—ever since the Government's defeat in the New Hampshire trial—Dr. C. E. Holton of the inspection staff had been quietly but relentlessly developing evidence to substantiate another charge of fraud. Every case that Rollins had ever cited in support of his therapeutic claims was subjected to the most searching inquiry. Literally hundreds of cases in which *B. & M.* had been used for serious diseases were tracked down to find those of which Rollins could be proved to have personal knowledge, particularly those in which he knew the outcome. Rollins' personal

history was investigated, and it is only just to interpolate that he had a good deal of genuine philanthropy to his credit. Whether he persisted of his own volition in selling an ordinary liniment as a serious treatment for tuberculosis or, like so many other manufacturers who find themselves in hot water, was urged on by legal and pseudo-medical advisers to stand up for his "rights" is an interesting, if futile, speculation. But since he had persisted, it was now necessary to go over his booklets, labels, even his collateral advertising, line by line, while his liniment was tried out in two sanatoria of recognized standing, by physicians indisputably expert in the treatment of tuberculosis.

The Government could afford to make no mistakes. If so palpable and vicious a fraud as *B. & M.* should again win legal absolution, there might as well be no law at all. Two courses were open: first, a criminal prosecution against the manufacturer, which would have to be tried in his home bailiwick, and, second, a civil action against the goods, which would get them off the market. There were several sound, practical reasons why the second course would be to the public interest. To begin with, there would be no hope at all of winning a criminal action if the Government could not make a seizure hold in court. Then again, seizures are always easier for the Government to win than prosecutions; with the product rather than the manufacturer in the dock, the jury is less likely to be swayed by sentiment and will judge the issue on its merits. This would be particularly true in a case like *B. & M.* where the manufacturer was highly esteemed by his neighbors and could be counted on to put up a good front.

The first attempt to get Rollins into court again on the fraud issue aborted when he failed to contest the 1928 seizures, realizing as he did that he was sure to be found guilty of making false and misleading statements about the germicidal properties of *B. & M.* It was to prevent a repetition of that narrow squeak that he called in Dr. Pease.

In a stop-gap booklet used during the first few months in 1931, until the Pease "scientific background" was ready, Rollins

incorporated much of the material from his labeling prior to the New Hampshire trial on the theory that it was *res adjudicata* (the lawyer's way of saying, "This matter has already been settled once and for all") and therefore unimpeachable in court. He seems not to have taken in the fact that legal "honesty" in 1922 did not preclude his lapsing from grace in the years that followed. Many of the old outrageous claims—for tuberculosis, pneumonia, scarlet fever, diphtheria, peritonitis, infantile paralysis—were repeated through statements attributed to a deceased physician, cases of the "we-are-told" variety that would be difficult if not impossible to trace, and the usual lay testimonials. But unfortunately for Rollins, there was one statement that was all too true:

"We are well aware that by any medical standards or viewed in the light of medical history, some of the recoveries mentioned may seem to border on the miraculous, but every statement of fact can be fully verified."

As one of the "typical tubercular cases" supposedly cured by B. & M., Rollins listed that of Belle F. Kendall, whose home in West Medford was less than a dozen blocks from his own. Her testimonial, dated March 28, 1917, was prefaced:

"Miss Kendall earnestly desires to inform other sufferers that the White Plague is conquered."

When the "U. S. vs. 43 Large Bottles and 95 Small Bottles of B. & M." came to trial before Judge W. Calvin Chestnut in Baltimore in 1932, the death certificate of Belle F. Kendall gave mute, but eloquent, testimony that she had died of tuberculosis three years after writing her pitiful endorsement of the horse liniment and eleven years before it was printed in this booklet.

Once again, Rollins was represented by Melvin M. Johnson, who was now president of the F. E. Rollins Company, a fact that seemed to cause him no little embarrassment when it was brought out in court. Johnson, who had won his spurs years before by getting an acquittal of murder for the famous Hattie

LeBlanc, testified that he was Chairman of the Board of Visitors of Tufts Medical School and therefore (though he did not say so) by way of getting expert medical advice if he wanted it. Practically resting his case on the fact that Pease had been paid \$15,000 to create an aura of "science" around the product, he said in his opening address:

"I shall show you that he [Rollins] abandoned claims in which he believed and believes today simply because the scientists would not go that far with him and said they needed further investigation before they would go to that extent. He had theretofore made certain definite claims in his booklet in which he then believed and in which he believes now, but which he abandoned absolutely because he was so determined that he had acted in good faith that he would not say one thing, even if he believed it, unless he had scientific authority for saying it. And this present booklet and these cartons . . . were made up, as we shall show you, after he had utterly abandoned all his former literature, submerged his own ideas, and said that he was going to be so careful that nothing would be published which was not in good faith, that he had every word of it either drawn or approved by two physicians, one of them a scientist, a fundamental investigator, and the other a practicing physician, before he put this booklet on the market."

Johnson was referring, of course, to Dr. Herbert D. Pease of the Pease Laboratories and Dr. David L. Martin, who had been such an interesting witness at the trial ten years before. Dr. Martin, it developed, had been pastor of the First Christian Church of Boston for nine years, his congregation paying his way through medical school. He had intended to become a foreign missionary, but had given up the idea on account of his wife's health. Now he was a specialist in eye, ear, nose and throat diseases, and a "consultant" for Rollins—meaning that he was paid \$75 a month to answer letters about *B. & M.*; he had also okayed the Pease booklet before publication. The original author of the germ-eruption theory of *B. & M.*'s therapeutic action, he testified that the character of the eruption indicated the nature of the disease:

"Now, if a man has the flu, he will get an eruption of the vesicles filled with water; if it is t. b., we get an eruption with a little black pinhead, mottled or pinhead; if it is a mixed infection, we will get sometimes as large as the thumb-nail, when the skin will slough right off."

B. & M. had still other remarkable properties, according to Dr. Martin. Putting it on the skin was a very good way to find out whether or not you had a deep-seated germ disease—no eruption, no disease! Indeed, he had known it to outline a sick kidney on the patient's back. When the Court remarked that turpentine alone would blister the skin, Martin agreed; but in *B. & M.* he thought it achieved new esoteric qualities that prevented its irritating the skin of a healthy person. *B. & M.* also "rendered an antitoxin into the blood-stream" (by penetration); and it was wonderful, not only for tuberculosis, but for locomotor ataxia and all sorts of serious diseases, not excepting "blood poison" from stepping on nails. Asked if he knew what the tetanus bacillus is, he replied: "I don't know; I am not up on those preparations."

Dr. Martin, as it turned out, was the only physician to go on the stand in Rollins' behalf. Though both Rollins and Johnson offered as evidence of their good faith the fact that they had hired Dr. Pease, who supposedly ranked high in the medical profession, to furnish a scientific basis for the claims made for *B. & M.* and to uphold their booklet in court as an "expert witness," the sad truth is that he ran out on them. To be sure, he had been in court while the Government was presenting its case, but when it came time for him to do his stuff, he was not to be found—even by the Government's subpoena. Johnson was pretty mad about it. Saying frankly that he was the one who had urged the employment of this defaulting "scientist," he appealed to the jury to sympathize with his client who had, in all good faith, paid \$15,000 to Pease, only to have him "welch" at the crucial moment.

"I have no excuse to offer you, gentlemen, for his not being here, except that he walked out on us."

But Pease had been listening to the Government's side of the case for two weeks! He had heard Dr. E. M. K. Geiling, Johns Hopkins' great pharmacologist, and others testify to the universal agreement among physicians that no known drug nor combination of drugs will destroy the tubercle bacillus as it exists in the human body. He had heard Dr. Geiling declare that there was nothing mysterious or "new" about any of the ingredients of *B. & M.*; their therapeutic action was well understood; they would not be absorbed through the skin and would do more harm than good if they were. He had heard Dr. Geiling brand the germ-eruption theory of *B. & M.*'s action as "absolute nonsense." He had heard such world-famous authorities as Lawrason Brown of Saranac Lake; Victor F. Cullen of the Maryland State Hospital for Tuberculars; Lewellys F. Barker, Physician-in-Chief of Johns Hopkins; Robert Kerr, Director of Tuberculosis Control Work in New Hampshire; and a dozen other experts of equally unassailable reputation deny any merit to *B. & M.* in treating tuberculosis or any of the other diseases mentioned in the labeling. Some of these physicians, like Dr. Cullen and Dr. James F. McMurray of the Davidson County Tuberculosis Hospital in Nashville, Tenn., had given the liniment a thorough clinical trial and got negative results. Others, like Dr. Kerr, had personal knowledge of some of Rollins' so-called "cures" and could testify at first hand that (1) they had never had active tuberculosis, or (2) if they had, were still suffering from it. He had heard Simon E. Sobeloff, brilliant United States attorney at Baltimore, call the roll of *B. & M.* testimonial writers—and had seen the answers in death certificates proving beyond all doubt that these deluded addicts to the horse liniment had succumbed to the very diseases they had said were cured.

To Rollins' plaint that the inexorable Dr. Holton of the Food and Drug Administration had gone around stealing epitaphs off of tombstones, Mr. Sobeloff retorted: "Well, that may be extreme, but do you blame the Department for looking for your customers in graveyards if you send them there?"

For Dr. Holton, in his dogged ten-year search for proof that

Rollins had knowingly and deliberately been victimizing the sick, had unearthed some amazing evidence. Not only had he verified case after case of fatal reliance on *B. & M.* to prove the utter falsity of the therapeutic claims, but he had uncovered the ingenious methods whereby Rollins obtained those lay testimonials that were the very warp and woof of his vaunted "good faith."

There was, for instance, Mrs. Emma R. Hammond, of Keene, N. H., whose motherly face had been pictured in the *B. & M.* booklets for years. Mrs. Hammond, a church visitor (so ran the legend), was first supplied with *B. & M.* by her pastor. Thereafter,

"From early morn until late at night, and sometimes far into the night, she sought out the sick who were unable to obtain other help."

On these "errands of mercy," as Rollins described them, the old lady (she was over seventy) supplied *B. & M.* to "eight well-advanced tubercular cases," of which six, he claimed, fully recovered, while the other two "apparently were making good progress." Dr. Kerr, so Rollins said on the stand, knew all about these cases. He did, indeed! Four were what Mr. Sobel-off termed "cases of the Dutch taking Holland"—they had never had tuberculosis! Relatives of others, testifying to their deaths, brought out the fact that Mrs. Hammond, like Burton Barnard (another "cure" who had never had the disease), was an authorized agent of *B. & M.*

But the most damaging revelation of all was that Rollins had paid \$1100 to Mrs. Edith Merchant of Ashland, N. H. for rendering the service advertised at the end of her testimonial:

"I would be glad to answer letters should anyone care to know more about my case."

Not only that, but when Mrs. Merchant, on her deathbed became too weak to write, Rollins agreed that her son should take over the correspondence at the same \$50 a month! Mrs. Merchant, you recall, was the woman whom Dr. Woodward had

shown to be tubercular at the time of the Boston trial—in spite of her alleged “cure.” Nevertheless, Mrs. Merchant continued to testify to her belief in *B. & M.* until 1927. Early in May of that year, her death certificate shows, she died of pulmonary and intestinal tuberculosis. In a letter to her son, dated September 5, 1927, Rollins wrote:

. . . it is of considerable importance to us to know the cause of death. We suspect it was cancer of the rectum or in that vicinity . . . of course, people who would like to make it appear that *B. & M.* accomplishes nothing will assume that the cause of death was tuberculosis unless the contrary can be positively stated.”

He enclosed a check for \$50 in response to a request for a loan. The son replied:

“Mr. Rollins you have it right. It was cancer of the rectum. The cause of mother’s death.”

And then there was the story of the three Allen sisters, Martha, Elizabeth and Margaret, who were admitted to the Rhode Island Tuberculosis Sanatorium for treatment in 1924. Margaret heard about *B. & M.* from her brother-in-law. When she found she would not be allowed to use it at the sanatorium, she went home, persuading her sisters to follow her. Martha, who was only eighteen, died after using the nostrum for four months. Elizabeth, after trying it out for about the same length of time, returned to the sanatorium, where she died three months later. Margaret’s case was only moderately advanced when she started using *B. & M.*; on her return to the sanatorium after trying the nostrum for a year, it was far advanced. Like her sisters, she too succumbed to the disease, but not until some time after the trial.

Rollins and his attorney fought desperately, jousting with the \$100,000 he had paid for the “scientific investigations” of Pease and Fenwick as the weapon forged of his good faith. (The little gift of \$1100 to Mrs. Merchant had been pure charity—Rollins was so sorry for her!) But, try as they would,

they could not overcome the evidence Dr. Holton had accumulated to prove a fraudulent intent, nor yet the expert testimony of the Government's host of distinguished medical authorities. And Judge Chestnut's charge to the jury could have been no salve to their wounds; for he emphasized the grave responsibility resting on the shoulders of those who sell medicines for the sick, and pointed out that the manufacturer's insistence on his own belief in his remedy is no excuse for recklessly and wantonly disregarding all evidence contrary to his claims.

This time the verdict was for the Government. Thanks to Dr. Holton's tenacity—to his sagacious and high-minded devotion to the public welfare during those long, discouraging years when as one of the three inspectors for the whole of New England, he plodded here and he plodded there, ferreting out evidence that was all but non-existent, so cleverly had Rollins covered up his tracks—such protection against fake cures as the Food and Drugs Act affords was saved. Just how much that protection is worth, however, we shall see presently.

On the face of it, "U. S. vs. 17 Large Bottles" no doubt seems like a Big Bertha trained on a sparrow; but at the time the Baltimore action was tried, nine other seizures of *B. & M.* were pending in various parts of the country and at least twice as many more were instituted during the summer—all based on the same charges of false and fraudulent curative claims in the labeling. The decision in the Baltimore case, however, disposed of all the others, for the manufacturer was thereby led to admit the Government's allegations as to misbranding; judgments of condemnation were entered and the seized goods were destroyed. To save future shipments from such a fate, the manufacturer undertook to relabel his product in accordance with the law.

Now that the fraud issue had at last been determined in favor of the Government, there was hope of getting somewhere in a prosecution of the manufacturer. Accordingly, several counts, each involving a misbranded shipment, were consolidated and action was brought against the F. E. Rollins Com-

pany in Boston. Through Melvin M. Johnson, who was still counsel for the company though no longer its president, the manufacturer pleaded guilty and paid a fine of \$2000. Should he ever be convicted again under the Food and Drugs Act, he could, if the judge saw fit, be sent to jail.

After spending ten years—and almost \$75,000—the Government has at last succeeded in getting the fraudulent tuberculosis claims off the label of this horse liniment. Off the label, and that is all! For over the radio—in magazines or newspapers—on billboards—in booklets, circulars, letters, and all other advertising—the manufacturer may still make any claims that strike his fancy.

Nor does the outcome of the *B. & M.* case serve, as you might think, to clean up the labels of similar products. Only this last year the Government has lost a case against *Brewster's G. D. Treatment for Tuberculosis of the Lungs, Tuberculosis of the Bones, and Asthma*, in a trial that would be incredible outside the State of Tennessee.

Originally known as *Germ Destroyer* and colored green to distinguish it from Brewster's *Ready Relief* for pneumonia, typhoid, appendicitis and diphtheria ("Doc" Brewster didn't want so many claims on one label!), *G. D.* is another turpentine liniment—turpentine and kerosene. Brewster has been peddling the stuff for years, but shipping it out of the State in such small quantities—only one or two bottles at a time, direct to the user—that it has not been practicable to seize it. For inspectors are not privileged to invade a private home and search the family medicine chest for remedies that may have been bought by mail in the same carefree way they descend upon warehouses and retail stores; nor can they, with the favor of the courts, induce shipments for the purpose of entrapping the manufacturer. A criminal proceeding was therefore instituted against the Brewster Laboratories—a rather pretentious trade name considering the fact that Brewster mixes the ingredients together himself and bottles the product in the basement of his home. As the law requires in criminal actions, the case was tried in the shipper's own district, and was based on the Gov-

ernment's charges of false and fraudulent curative claims in the labeling of several Brewster products, of which *G. D.* was the bellwether.

To sophisticated people, the *G. D.* "literature" might be amusing were it not for the serious consequences to the sick who put their trust in it. For "Doc" Brewster does not hold with open windows, fresh air or tub bathing, and while he concedes that tuberculosis is "contagious," he says there is "practically no danger of contracting" the disease if you take a teaspoonful of his *Liver Tonic* (coal and cottonseed oils) at bedtime and use his *G. D.* treatment twice a week. It appears to be the liniment, though, that does the trick, for in another place he says that medicine taken internally does not affect lung trouble, since it "passes on by the lungs" on its way to the stomach. And there is the same odor of sanctity that so often pervades patent-medicine advertising:

"We firmly believe in an All-Wise Creator, we equally believe that He is just and good to man. We believe that he has placed within reach of man a panacea for every disease, a solace for every pain, man needs but faith, intelligence and energy; for the remedies are surely here."

Some of the testimonials are reminiscent of *B. & M.* In particular, Mrs. A. J. Shady, like Belle F. Kendall years before, writes that "the white plague has been conquered"; only in this case, not the writer, but her two sons have succumbed to the disease.

Armed with the death certificates of people who had been "cured"; with expert medical testimony to the worthlessness of these nostrums in the treatment of tuberculosis; with evidence that many of the lay testimonials had been forged and had no basis in truth anyway, the Government embarked upon the trial with every confidence of success. Bacteriologists told how staphylococcus aureus could be soaked in *G. D.* for a couple of hours without being killed, and gave the stuff no more credit as a germicide than vinegar or soap and water. Men and women whose names appeared in testimonials describing their own cures

or those of others denounced such endorsements as unauthorized and denied not only that they had been cured, but—in some instances—that they had ever had the disease! The special attorney for the Government, one of the ablest ever to try a Food and Drug case, had had a good deal to do with the successful outcome of the *B. & M.* trial and followed the same procedure here. Everything went along swimmingly.

But the jury, made up largely of Brewster's fellow members in the Church of the Nazarene (a sect very much like the Holy Rollers), was not interested. Brother Brewster's witnesses with their miraculous "cures" were more appealing. Indeed, so impressed was one juror with Brother Brewster's selling talk that he placed an order for *G. D.* right then and there! And Mrs. Shady, confronted with her son's death certificate showing that he had died of pulmonary tuberculosis when she had pronounced him cured, said it "must have been changed." There was no shaking their faith in that "grand man." To make the farce complete, Brewster announced on his acquittal that he would have to find larger quarters to accommodate his growing business.

And so it goes. Eventualities of this sort are by no means rare in the enforcement of the Food and Drugs Act; nor will they be so long as the Government's efforts to protect the public from vicious nostrums—vicious in the cruel falsity of their therapeutic claims—are nullified by the fraud joker in the law. I have told you about these cases in detail because in almost every aspect they show what the Government is up against in trying to control some of the worst evils in the patent-medicine industry. The Proprietary Association—through one mouthpiece or another—tells you repeatedly that a law drastic enough to control these evils is equivalent to "burning down the house to get rid of the rats in the attic." As well argue that the Lindbergh Law is unnecessary because all Americans are not kidnapers!

B. & M. is not unique among proprietary medicines anyhow. In some ways it typifies the danger of secret remedies under the present law. Harmless in itself, it is probably a pretty good liniment when a counter-irritant is called for; but

when its poor, deluded victims rely upon it to cure a disease like tuberculosis, both user and remedy become a menace to the public health. For the patient, beguiled by false promises of cure, fools around with a worthless nostrum until it is too late for rational treatment to be of any benefit, meanwhile exposing others to the hazards of his disease.

The pathetic eagerness with which sufferers from tuberculosis, diabetes or cancer snatch at anything they think will help them makes them easy dupes for the quacks and charlatans who batten on their ills. Usually they are persons of little education, at least in science; they are desperate; they are gullible. They have so little understanding of disease and rational therapy that any gain from rest or diet—especially in tuberculosis—they attribute to the nostrum. Naturally, they are grateful to the sympathetic, Scripture-quoting “doctor” who comforts them with rosy pictures of recovery and—more likely than not—makes them a present of some of his medicine in return for their endorsement. If you think those free bottles are without importance, let it not be forgotten that tuberculosis is primarily a disease of poverty—of malnutrition and overwork and squalid, sunless living! The doomed who have not the means for securing the wholesome food, sunlight, rest and fresh air their condition requires will go without necessities—to build up fortunes for the nostrum makers.

The number of such quack remedies is appalling. You probably never hear of most of them nor see them advertised—for their favorite media are not the magazines and newspapers you find on the corner stands, but Jacobs’ religious papers, wood-pulp “home” magazines like *Comfort* and *The Gentlewoman*, fraternal organs like *The Sovereign Visitor*, the “patent insides” of some country papers, or, more likely still, handbills, almanacs and “word of mouth.” Indeed, the criticism has been made (by persons who ought to know better) that many of the exhibits in the Food and Drug Administration’s “Chamber of Horrors” are not justified because the products are not advertised. That is ridiculous. Many of them are advertised—widely; copy for *Marmola* and *Koremlu*, to name but two, has

appeared in outstanding publications. But what of it? The point is that they are sold and used—used with disastrous consequences. The three Allen sisters who depended upon Rollins' horse liniment to cure them of tuberculosis are just as dead as if they had read about it in nationally known magazines.

Diabetes remedies are especially common—though no authentic cure is known to medical science. The disease is caused by failure of the Islands of Langerhans in the pancreas to secrete a normal amount of insulin into the bloodstream. Insulin is necessary to convert sugars into a form in which they may be stored for future use in creating heat and energy—a process in which insulin, too, has part. If anything happens to the Islands of Langerhans so that the secretion of insulin is diminished, the symptoms of diabetes appear. There seems to be some sort of direct relation between the decrease in insulin and the damage done to the Islands of Langerhans; but there is no drug nor combination of drugs known to the medical profession which will regenerate the destroyed tissues of the pancreas any more than there is a method for re-growing an amputated leg or a drawn tooth. Treatment of diabetes therefore resolves into the administration of insulin in proportion to the body's needs, restriction of sugar sources in the diet, and exercise. In mild cases, diet alone may suffice unless complications such as infection or further injury develop. Insulin is not a cure, but it will make the patient more comfortable and perhaps enable him to live out the normal span of years.

Because to the average layman the test for diabetes is the amount of sugar in the urine, any diuretic which seems to lessen the sugar—though only by diluting the urine—looks like a cure and raises high hopes. The blood sugar is not affected, but the layman does not know that. Constant purging may create a similar illusion of improvement by preventing the absorption of food. Sugar in the urine is not conclusive proof of diabetes, anyhow. It may come from a recent excessive intake of carbohydrates or, on the other hand, it may be absent when the blood sugar—the real test—is high. A single examination, therefore, is not enough; there must also be exact information

[illegible]

about diet, physical condition, and the time of the last meal for the analysis to have any significance.

Unfortunately, insulin has to be administered by hypodermic needle, and that requires a certain technique which many people never acquire, especially when they have to operate on themselves. Some day, perhaps, a method will be perfected whereby insulin may be taken orally without being destroyed by the acid juices of the stomach, but in the meantime the only way of getting it into the bloodstream intact is by injection. Fear of the needle becomes almost a phobia, and it is not surprising that diabetics will try practically anything that promises to free them from the tyranny of insulin. The pity of it is that a substitute for insulin does not exist.

Plenty of substitutes are offered, however. One of them, a preparation called *Banbar*, has attracted considerable notice in the "Chamber of Horrors." It is essentially an extract of equisetum, or horsetail, a common weed often found growing along the railroad tracks. Farmers in western Pennsylvania who use its gritty sprays to clean their milk cans call it "scouring rush." The promoter of this laxative-diuretic is a former shirt salesman, Lee Banks Barlett of Pittsburgh, who says it cured his wife of diabetes in 1917. Now, it may be that Mrs. Barlett actually did have the disease, as she seems to think; but when the Government took her husband to court in a criminal prosecution a couple of years ago, the physician who testified to her illness did so from the recollection (refreshed by Barlett) of a look at her fifteen years before and one urinalysis.

Barlett, whose formal education ended in the eighth grade, employs a manufacturing method not unlike that of Mrs. Lublin or Brother Brewster in its scientific precision, but with an added frill or two of his own. At least he tries the product out on himself, though he is not a diabetic. To the solid extract of equisetum, which he gets from S. B. Penick & Company, an ethical house, he adds Lilly's *Nulixir* as a vehicle, oil of peppermint to flavor, and sugar of milk "to render analysis more difficult." Then, to test the purity—but let him tell it:

"Each lot of solid extract that comes in I finish off, a matter of two or three ounces, use it myself in the regular dosage for a period of a day to determine the accuracy of the product; if I have no expected reaction, my wife joins me the second day; and if there is no expected reaction, my daughter joins me the third day; and personally I continue on a matter of five to seven days, to determine for a certainty as to whether the manufacturers of the solid extract may have made any error in the procedure."

The finished product he sells for \$12 a pint (or eight ounces for \$6.50.) What it costs him is something else again, for when some *Banbar* was lost in the mail, he asked the Post Office to pay him \$2.25 each for the missing eight-ounce bottles, which was what he said they cost him for ingredients, handling and everything else. On the stand he admitted that the pint bottle cost him less than twice as much as the smaller bottle.

The principal witness for the Government was Dr. Elliot P. Joslin of Harvard, internationally known authority on diabetes. The lustre of his name, according to the Pittsburgh newspapers at the time, attracted to the courtroom every physician in western Pennsylvania who could get away from his practice long enough to attend the trial. With the possible exception of Banting, who discovered insulin, Dr. Joslin probably knows more about diabetes than anyone else in the world. When he was asked on the stand how many cases he had examined ("quite a good many"), it was brought out that eleven or twelve thousand patients come to him every year. He discussed the disease in considerable detail, explaining why insulin, together with diet and exercise, is the only effective treatment now known, and how, when drugs sometimes appear to help, it is really the accompanying diet that is responsible for the improvement. He did not think *Banbar* would be of any value in treating the disease, although he said frankly he had not tried it—he does not believe in experimenting on human beings in matters of life and death. Besides, he was familiar with the action of its ingredients and knew what to expect from them in diabetes.

A letter he had written to Barlett was introduced as evidence that he had advised him not to experiment on human patients, but to have *Banbar* tested properly in a scientific laboratory.

Other physicians who testified for the Government had personal knowledge of the preparation, either because as diabetics they had taken it themselves or because they had seen its effects on their patients. None of them believed it to be an effective treatment for diabetes.

Again, the Government produced death certificates showing that diabetics who had testified to the curative merits of *Banbar* had nevertheless died of the disease, and other testimonial writers—or their relations—recanted similar endorsements. These parallel testimonials and death certificates were later shown in the “Chamber of Horrors,” where they excited much comment. One read:

“Enclosed you will find money order for another, bottle of *banbar*, as I find it is helping me wonderful, this will be my sixth bottle. I will not stop at the sixth bottle, I will continue until I am cured.”

But the corresponding death certificate showed that the letter writer’s death—almost exactly a year later—was due to “diabetes mellitus.”

Barlett, however, was permitted to send into the jury room 100 testimonial letters ostensibly showing why he had so much faith in his product—while the Court charged that if the jury believed he had actually received them and relied upon them he must be acquitted.

Acquitted he was. The Government cannot appeal since under the Constitution no one may be put in jeopardy twice for the same offense. (Another reason why enforcement officials must consider carefully before recommending a criminal rather than a civil action!) Prosecution for a second offense—unless the fraud joker is stricken from the law—would probably end the same way. Diabetics will therefore continue to die because they monkey around with *Banbar* until it is too late for insulin or anything else to save their lives.



The death certificates in this Banbar exhibit from the original "Chamber of Horrors" show that in each case the writer of the corresponding testimonial to the value of the nostrum in curing diabetes later succumbed to that disease. The letter and death certificate marked "A" in the exhibit are reproduced below.

The Federal Government prosecuted the manufacturer of Banbar as a dealer in violating the Food and Drug Act. At the trial a stack of death certificates specifying diabetes as the cause of death was presented, along with a stack of testimonials from satisfied users of Banbar, whose names appeared in the death certificates.

The jury did not believe the ex-shirt-salesman deliberately lied, and returned a verdict in his favor. Banbar is still on the market—at the bargain price of 50¢ per pint.

*Between 2 & 3
Nov 18 1929*

*Mrs. L. B. Barlett
Dear Sir*

I enclose you will find money order for another bottle of Banbar, as I find it is helping me wonderful. This will be my eighth bottle. I will not stop at the eighth bottle, I will continue until I am cured.

*Yours truly,
L. B. Barlett
1046 Madison Ave.
Paterson, N. J.*

State of New Jersey

DEATH CERTIFICATE

1. PLACE OF DEATH: Paterson

2. FULL NAME: Simon A. Post

3. RESIDENCE: 1046 Madison Ave., Paterson, N. J.

4. PERSONAL AND STATISTICAL PARTICULARS

5. SEX: Male RACE: White COLOR OF HAIR: Married

6. DATE OF BIRTH: August 16, 1877

7. DATE OF DEATH: August 16, 1929

8. CAUSE OF DEATH: Diabetes Mellitus

9. PLACE OF BIRTH: Paterson, N. J.

10. PLACE OF DEATH: Paterson, N. J.

11. NAME OF DECEASED: Simon A. Post

12. NAME OF DECEASED: John Post

13. NAME OF DECEASED: Margaret Ann Post

14. NAME OF DECEASED: Laurel Grove Cemetery

15. NAME OF DECEASED: Paterson, N. J.

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A year or two ago, a man in West Virginia wrote to the Department to ask about another of these alleged "cures" for diabetes. Here is his letter:

"I have just read an article stating your department is starting a campaign against dangerous foods, cosmetics and medicines. I am enclosing letters and a pamphlet which are self explanatory.

"I have had diabetes for seven years. Have been employed by the Baltimore and Ohio Railroad Company for twenty-three years as a locomotive fireman and engineer but for the last seventeen months have not been allowed to work on account of using insulin. I am at the place that I am very much in need of employment of some kind, but owing to the disease that I have, my age which is forty-five, and the depression, I have been very unfortunate in finding anything or any promise.

"If you can see your way clear to take the time to advise me, I would very much appreciate your opinion regarding this medicine. I have been taking it for over six months and cannot see that I have received any benefit."

The letters he enclosed were from the president of the Healthagain Laboratories, Inc., Dr. John Edward of Wellsburg, West Virginia, advising him to stop insulin and depend upon *Healthagain* to get his old job back.

I looked up the record of this stuff and found that the formula calls for Epsom salts 22 per cent; cane sugar 20 per cent; alcohol; and extracts of jalap, senna and rhubarb, which are laxative plant drugs. It seems hardly necessary to point out the utter heartlessness of one who would give cane sugar to a diabetic. *Healthagain* acts simply as a laxative and diuretic, as does *Banbar*, though it is recommended as a cure for fourteen serious diseases, from diabetes, tuberculosis and Bright's disease to liver and stomach troubles. In going through the records, I noticed any number of death certificates of people who had taken the stuff, only to die of the very diseases it was supposed to cure. One in particular, I remember, was that of a seventeen-year old boy who had died of diabetes.

A prosecution against Dr. Edward is pending at the present

time. But even if the Government succeeds in proving fraud and wins its case, this ex-dry cleaner can go on selling his nostrum without restraint, making any claims he likes in his collateral advertising.

But numerous—and wicked—as the diabetes and tuberculosis nostrums are, they pale beside the cancer fakes. While certain types of cancer, if they are caught early enough, may be cured by surgery, radium or x-ray, no serum, antitoxin, drug nor combination of drugs has been scientifically shown to have any curative effect. Nor has the cause of the disease been determined. Because old people in particular sometimes develop harmless growths that can be burned away by various caustic or escharotic treatments, the credulous layman may point to the scar as proof that he has been “cured.” So terrible is the scourge, so desperate the hope of cure, that the cancer victim falls a pathetically easy prey to the quack.

Leaving out of account the cure-alls like *B. & M.* or *Health-again*, which list cancer as just another one of the diseases they are alleged to benefit, there are a deplorably large number of so-called “specifics” that flourish outside the law. The Federal Food and Drugs Act has been responsible for more than eighty court actions against these inhuman fakes; but it can do no more than keep the name of the disease off the label. By a smooth promoter that may be made a virtue. When Peter Wilkens of Muscatine, Iowa, changed the name of his *Cancer Specific* to *Wilken's Proprietary Medicine*, he explained that he did so “advisedly,” in order that certain types of patients would not be told of their condition, while others would not be “re-minded” of it. Such thoughtfulness is not without its compensations, for if the labeling is otherwise innocuous it puts the product beyond the range of Federal regulation.

Also safe from Uncle Sam's control are the various “institutes”—a particularly profitable form of the cancer racket—which are careful to confine their activities to so-called personal treatments and not get over the State line. Unless they sell their preparations in interstate commerce under labels bearing curative claims, they are not subject to the Federal Food and

Drugs Act. Nearly always they are operated by charlatans with little or no scientific training. The notorious Baker Hospital in Muscatine, Iowa, which reaped its full quota of deaths (and \$75,000 a month) was run by Norman Baker, a vaudeville hypnotist and teacher—by mail—of oil painting. Associated with him for a time was Harry Hoxsey, a former coal miner, whose arsenic treatment for cancer was originated by a horse doctor. One of Hoxsey's former partners, Bruce Miller, used to be a paper hanger and also an impresario, touring Europe with a "dummy" orchestra in a trick pipe-organ act. Still another partner of Miller's was "Old Doc" Tilton, ex-carpenter and locomotive fireman, who was convicted not long ago under the Food and Drugs Act and fined \$2,000, for non-payment of which he served thirty days in jail.

More dignified, but no less quackish in the opinion of ethical physicians, is the Koch Cancer Foundation in Detroit. Dr. William F. Koch, the head of it, was an infant prodigy who discovered his marvelous *Synthetic Anti-toxin* before he had been out of medical school a year. Working with him are various other medical-school graduates whose standards of professional ethics are comparable to his own. His antitoxin is a coal-tar derivative of the acridine group, with soda and potash. It is sold to physicians, though not necessarily those of the highest standing, for injection purposes. The first jab is said to cost \$300; subsequent treatments, at least \$200. All advertising is done through a *Bulletin* published by the Foundation and filled with highfalutin pseudo-science that stuns the layman as effectually as if Koch literally hit him over the head with all six volumes of Osler's *Modern Medicine*. Since the anti-toxin is "synthetic," the Virus, Serum and Anti-toxin Act enforced by the Public Health Service does not apply to it. In any event, the Food and Drug Administration can do nothing about it, for Koch—for reasons of his own—keeps the name, as well as any therapeutic claims, out of his labeling.

Charles W. Mixer was not so cautious in the labeling of his *Cancer and Scrofula Syrup*, despite a previous conviction under the Food and Drugs Act, to say nothing of a Post Office fraud

order. Those woes, however, befell him long ago—in 1910, to be exact. In those days he was functioning as “Drs. Mixer, Hastings, Mich.,” in the sale of a seven-item treatment for cancer. Following his difficulties with the Post Office, a rubber stamp served to change the name on his stationery to the Mixer Medicine Company; but he still had so much money left after paying the \$25 fine the Court imposed on him for violating the Food and Drugs Act that it was hardly worthwhile to bother with his nostrums any more. The business seems to have lapsed into a state of suspended animation for twenty years. Then, the closing of a couple of banks in which much of the blood money had been deposited roused the *Cancer and Scrofula Syrup* from its long slumber. Like Rip Van Winkle, the product awoke with a full set of whiskers, for the wrapper bore a portrait of one of those bearded heroes of the ‘eighties alleged to be “a correct likeness of Dr. L. N. Mixer after nine years of suffering and a final cure by Mixer’s Cancer and Scrofula Syrup. Forty years elapsed with no return of the disease.” The Food and Drug Administration promptly seized several shipments of the nostrum.

Mixer’s Cancer and Scrofula Syrup is one of the old-fashioned “spring medicines” or “alteratives” (although that term is no longer to be found in standard textbooks of pharmacology), and consists essentially of potassium iodide with extracts of plant drugs, including a laxative; alcohol, sugar and water. In the old days, when green vegetables were not so plentiful in winter time as they are now, these spring medicines were highly esteemed as “blood purifiers,” and hence as remedies for syphilis. Skeptical physicians of today attribute their apparent virtues to the fresh garden products of early spring just coming into season when the medicines were taken. As a treatment for cancer or syphilis they are of no earthly use.

A criminal prosecution against Mixer threw the spotlight on a strange and dreadful spectacle. For it revealed an old man, himself dying of cancer, avidly providing the best medical attention for himself by the sale of a criminally worthless nostrum to other victims of the scourge. Among his customers there

was, for instance, old William Gill, seventy-three years of age, who was dying of a cancer of the mouth and nose. Approximately half of the left side of his nose and almost all of his upper lip had been eaten away. He lived in a shack, hardly habitable, and made what money he had by raising a few chickens. As the young inspector who looked him up reported to his chief:

"It must have taken a lot of time and work for such an old man to earn the money he sent the Mixer Medicine Company for its worthless products."

The old fellow, realizing that he was getting no benefit from the stuff, wrote as much to Mixer. This is the letter he got in reply:

"My records show that in August I sent you a jar of *Cancer Salve* #7 B K and as I understand it you say in your letter received today that this does not seem to do you any good. This is a little surprising to me because as a general rule this particular salve is most beneficial under such circumstances. . . .

"Now it is my honest opinion that most thorough use of the *Cancer and Scrofula Syrup* in your case is all important thing and the records show that you have taken only three bottles and this is not enough and not a long enough time to overcome conditions manifest in your case. Many times it will take more than six months to even produce radical change for the better simply because the disease is thoroughly constitutional and it is a hard fight to overcome the poisonous germ and only persistency and thorough and constant treatment will do this."

Three or four months later William Gill complained again that the medicine was not helping him, only to receive this:

"Now I can not blame you or any one else who is afflicted by being somewhat discouraged if they do not see some improvement in their condition as treatment advances, but I have seen so much of this and the benefit of being most persistent in treatment that I am sincere in advising you as I do and sincerely hope that you will not think for one moment that I

am prompted in making suggestions in regard to treatment simply because I want to sell you more remedies or medicine. I would be ashamed of myself from a professions standpoint if I ever did anything of that kind."

And then he recommended that the poor old man get himself some boric acid and gargle with it! This was probably the best part of the whole treatment.

The final curtain rang down on this grisly drama before the action against Charles Mixer came to trial, for he died on Armistice Day, 1934, while old William Gill, awaiting death, lay in the Mercy Hospital in Burlington, Iowa.

Though in the total volume of their business as compared with that of legitimate drug products the nostrums put out by the Barletts and Mixers may not be impressive, they take a heavy toll in human lives and taxpayers' money. Physicians, after eight or ten years of highly specialized training, have to go through certain legal formalities before they may set up in practice. But the shirt salesman, the race-track tout, the coal miner, the dry cleaner who wishes to treat thousands of people he has never seen for tuberculosis, cancer, diabetes or some other serious disease may prescribe for them with impunity so long as he can impress upon a lay jury that he knows so little about medicine that he could not realize his remedy was worthless. If he can stick to that story convincingly—long after he has ceased to believe it himself—the sick may continue to die, but he will be sure of his profits. Until the fraud joker is stricken from the act, and medicine vendors are put under license, there can be no real control of the package-medicine industry.

CHAPTER FOUR

The Death-Dealers

WHEN Eben M. Byers, wealthy Pittsburgh steel manufacturer and sportsman, died of radium poisoning a few years ago as the result of drinking a radio-active water called *Radithor*, there was immediately a great hue and cry in the press because the Government had permitted the sale of such a product. At least a hundred other prominent persons were believed to be threatened with the same fate, and public indignation was thoroughly aroused.

"Is the Federal Food and Drugs Act, then, a joke?" asked the New York *World-Telegram*.

"Can the Department of Agriculture make only impotent gestures toward protecting the public from impure and dangerous drugs?"

The answer to both questions is a qualified "yes." While the law deems unwholesomeness an ample reason in most cases for removing a food product from the market, it does not authorize the seizures of dangerous drugs unless their labels misrepresent them. The quack who knows how to slip through this loophole can carry on successfully regardless of what happens to his customers.

Post-mortem examination revealed that Mr. Byers had suffered a torturous, slow death through the breaking down of his bones under a terrific battering of alpha radium particles. His jawbones in particular had disintegrated because of the radium lodged between his teeth; but all of his bones, and the soft tissues to a lesser degree, were found to be radio-active. That is

The Food and Drugs Act contains no provision against dangerous drugs, nor does it require label precautions against overdose, too frequent dosage, or other probable misuse of potent drugs. (Reproduction from a Government exhibit.)

hardly surprising in view of the fact that 73.66 micrograms of radium were found in his body. Dr. Frederick B. Flinn, Director of Industrial Hygiene in Columbia University's College of Physicians and Surgeons, who has diagnosed more cases of radium poisoning than anyone else, has estimated that five micrograms deposited in the body are enough to cause death within ten years. Physicians who attended Mr. Byers in the hospital reported that even the air he exhaled was radio-active.

Curiously enough, the diagnosis of radium poisoning came about somewhat by accident. Mr. Byers, on the advice of a physiotherapist, had been drinking *Radithor* for about five years, consuming hundreds of bottles. At first he had felt greatly invigorated. But then came a reaction, with terrible pain in his jaws, headaches (the autopsy showed he had a brain abscess), anemia, and such extreme emaciation that although he had been a well-developed athlete he wasted away to ninety pounds. In an effort to determine the cause of these symptoms, his physician requested some x-ray pictures. By chance they were made by the expert whom Dr. Flinn had employed in the famous radium watch-dial cases, in which several girls had been poisoned by luminous paint. He was struck at once by the similarity to those pictures and suggested that Dr. Flinn be consulted. But it was too late. Not long afterward, a woman friend of the family who had been taking *Radithor* on Mr. Byers' recommendation died from the effects of the poisoning, and the doomed man began then to realize that his own death was not far off. The mental agony he suffered is not happy to contemplate.

The history of radium is so picturesque, the element itself is so weird and its action so little understood—especially by the man in the street—that it is easy for an unscrupulous quack to capitalize on its mysterious properties.

William J. A. Bailey, who promoted *Radithor*, seems to have been mixed up with a variety of emanation products, both medicines and devices. His first business venture, however, was the Carnegie Engineering Corporation, a mail-order scheme for distributing cheap automobiles. That was back in 1915, and it

landed him in the Tombs for thirty days for violating the postal fraud laws. A few years later, he was promoting radium rejuvenators. One of his gadgets, the *Radioendocrinator*, sold for \$1,000, the price later being trimmed to \$150 when the suckers ceased to bite. It was supposed to cure everything from acidosis to wrinkles, but more especially the consequences of sexual follies. Happily, it would also improve the character and the memory, to say nothing of one's looks. These miracles were accomplished, according to the advertising, by the ionization of the endocrine glands through gamma rays emanated by the device. His other offerings, whether contraptions or pills, were cut to the same pattern. Fortunately for his customers, most of his wares have been merely worthless rather than harmful.

An interesting aspect of Bailey's methods in promoting *Radithor* is the way he worked the "doctors." Although the illegal practice of medicine—he holds no medical degree—got him into trouble in New Jersey a few years ago, he has never hesitated to refer to himself in his advertising as Dr. Bailey. And he has applied the title with equal informality to other unorthodox practitioners. Offering them a "professional discount" of \$5 a case, he said on one of his order forms ("For Doctor's Use Only"):

"Our special co-operation arrangement with doctors will be explained by letter on request."

Just what this arrangement was one may gather from another blank sent to the "doctors" and headed:

"LIST OF NAMES FROM DOCTOR

Special Note to Doctor:—We will send literature on *Radithor* and Dr. Morris' book with your compliments to any list of names you send us. Should these patients purchase directly you will receive *full credit* for same on all orders placed."

The book was one of his more elaborate pieces of sales literature—*Modern Rejuvenation Methods*, by Charles Evans Morris, M. D. It had no scientific value at all, but it sounded fine.

Equally specious was the *Radithor Bulletin*, mailed regularly to customers and prospects and filled with pseudo-scientific palaver to impress non-scientific readers. Instead of the usual testimonials, quotations and news items served to introduce the names of the great in apparent endorsement of *Radithor*. Mr. Calvin Coolidge, for instance, had ventured to tell a convention of the American Medical Association that doctors are less intolerant than they used to be:

"The modern broadminded physician is willing to use or to recommend whatever methods seem best suited to the case in hand."

The editor of the *Bulletin* agreed heartily—did not the extensive use of *Radithor* prove that alert physicians were willing to discard drugs in favor of rays? And when Dr. Robert A. Millikan, Nobel Prize winner, suggested that all elements may be radio-active, he conceded that the theory might have "some scientific significance," but

"... the facts are that only in the case of what are called the 'radio-active group' (chiefly mesothorium and radium) are the rays readily demonstrated and utilized for therapeutic purposes largely."

Radithor's advertising had to be good—the stuff sold for \$30 a case! While it was directed chiefly to wealthy but jaded individuals seeking a remedy for sexual impotence or venereal disease, it also made claims of curative worth in 160 other afflictions. The minimum course of treatment was three to five months—a half-ounce bottle to be taken every day "in the average condition," but two or three in severe or chronic cases.

It is important to note that none of this nonsense, except part of the directions, appeared in the labeling. The bottle bore the simple, but entirely truthful, statement that its contents were "Certified Radio-Active Water, Contains Radium and Mesothorium in Triple-Distilled Water." And that's just what they were! *Radithor*, therefore, was neither adulterated nor misbranded within the meaning of the Food and Drugs Act. The

law, unfortunately, makes no provision for potent drugs which may be dangerous when taken according to directions.

This immunity of *Radithor* to legal action was an ironic tribute to the strictness with which the Food and Drugs Act is enforced. For it was from a previous costly experience with that statute when he and Frank Mastin—the latter better known for his *Vitamin Yeast* and *Nuxated Iron*—were operating as Associated Radium Chemists, Inc., in putting out another radium rejuvenator that Bailey had learned how to make his medicines as wholly lawproof as devices. *Arium*, as the nostrum was called, was alleged to be "Radium-in-Tablets," but luckily for the customers it did not contain enough radium to worry about. Charging that the claims made for the preparation were unwarranted, the Food and Drug Administration seized every shipment that could be found, putting such a crimp in the business that its owners were subsequently obliged to part with the trade name at a sheriff's sale. *Arium*, with a different formula, is now distributed by another concern, the International Drug & Chemical Company, though as before it is actually manufactured by the Arner Company of Buffalo.

After this experience, Bailey knew better than to put his claims for *Radithor* on the trade package. Unable to seize the nostrum since it did not violate the law, the Food and Drug Administration nevertheless warned the public repeatedly of *Radithor's* dangerous character, and co-operated with the Federal Trade Commission in collecting the evidence for that agency to stop the advertising by a cease-and-desist order. The order was issued a few months before Eben Byers died. Bailey, however, had seen the handwriting on the wall and sold out to another concern.

Though the dangerous character of a patent medicine is not of itself enough to ban the product under the Food and Drugs Act, it sometimes happens that the manufacturer, through ignorance or carelessness, commits a technical violation which brings him within range of the law. The Food and Drug Administration is watching for him, and by proceeding against him (or his product) for adulteration or misbranding tries to get the

preparation off the market and to persuade him to change his formula.

It was by this means that the Administration sought to restrict the sale of *Dr. M. Hermance's Asthma and Hay Fever Medicine*, the principal ingredient of which is potassium iodide. This dangerous drug has the peculiar property of converting a latent case of tuberculosis into the active form of the disease. The victim does not always know he is tubercular and diagnosing his wheezy, difficult breathing as "asthma" may attempt to doctor himself with a drug that is contraindicated.

To the physician, asthma is not so much a disease as a symptom due to a variety of causes. In most cases it is an allergic manifestation. That is to say various substances to which some people seem to be sensitive set up a spasm of the bronchial muscles or a swelling of the mucous membranes lining the smaller bronchial tubes, thus producing a peculiar labored breathing and audible wheeze. Certain foods, such as shellfish, egg white, cereals and milk, may cause asthma, particularly in children. Grown-ups are more likely to suffer as the result of inhaling the irritating substances. Since there are so many different causes, it is obvious that no drug nor combination of drugs constitutes an effective cure in all cases.

For hay fever, potassium iodide would be no good at all, for it promotes the flow of mucus, which in this ailment is already too profuse for comfort.

The drug may also have a harmful effect on metabolism and associated phenomena in thyroid disease since it increases the activity of the thyroid gland.

All of these facts and more were brought out by medical experts when the Government's seizure of *Dr. M. Hermance's Asthma and Hay Fever Medicine* came to trial, but they had less bearing on the outcome—except in one remarkable particular—than others having to do only with the history and manufacture of the nostrum.

Once upon a time, it seems, there really was a Dr. M. Hermance who had a favorite prescription for asthma and hay fever. He was an eclectic and practiced in Brooklyn some time after

the Civil War. There he went into business with a druggist by the name of Bell, who filled his prescription for him. When the druggist died, several years later, his widow bought out the doctor's share of the business and continued the manufacture by herself until 1905. Then, teaching her son Claude, an ex-farmhand and streetcar conductor, how to make the medicine, she turned the business over to him. Claude Bell still makes the stuff in his home, putting out thousands of bottles a year—on each of which he makes a nice profit of 300 per cent or more, depending on the size. With no other source of income, he has a fine home and is a highly respected member of the community. While he has had no scientific training (he left school after the eighth grade) and his equipment consists only of graduates and scales, all that is an advantage under the Food and Drugs Act. For of course he does not know enough about medicine to appreciate the danger lurking in that syrupy, brown concoction of his. His own wife takes the medicine—is that not evidence of his faith in it?

The jury decided that it was. But while it returned a verdict in favor of his product it recommended

“ . . . that the claimant insert in his literature a warning against its use by persons having tubercular tendencies.”

The Food and Drugs Act makes no provision for warnings on the labels of drugs which may be dangerous when taken according to directions. While the law requires that the presence of certain habit-forming drugs be declared on the label, it does not require enough additional information to make the statement mean anything to the average person. How many people who see the declaration of acetanilid on a headache powder or cold remedy know that it might kill them? That it depresses the heart and destroys the oxygen-carrying power of the blood? That it might even make them slaves to the drug habit?

Some time ago the Food and Drug Administration investigated the case of a woman who was killed by this coal-tar derivative taken in a headache medicine. The average dose of acetanilid prescribed by physicians is three grains, but she had

taken a powder containing six grains, followed soon afterward—since there was nothing on the package to warn her—by a similar dose. Death was practically instantaneous. No action could be taken against the product, for it was truthfully labeled and the quantity of acetanilid was indicated on the label exactly as the law requires. To prevent further tragedies of the kind, the only thing the Administration could do was to issue a warning against such preparations and urge the public to read the labels. It is not known how many papers published the warning.

Death does not always follow the taking of acetanilid. A human life may be destroyed slowly and insidiously over a period of years through addiction to this enslaving drug. Medical literature abounds with the pitiful histories of its victims. One such case was recently brought to our notice when a *Bromo-Seltzer* addict was committed for the fourth time to a State asylum not far from Washington. A man of good family and cultural background, he is a commercial artist and used to command a good income. Five doses of *Bromo-Seltzer* every day—he had been getting them at a soda fountain—have helped to make him a physical and mental wreck. He is habitually in such a doped, dazed condition, with hallucinations and a persecution complex, that he is no longer able to earn a living or be at large, and his family is on the relief roll.

Acetanilid alone may not be entirely responsible for this man's condition. *Bromo-Seltzer* contains yet another dangerous and demoralizing ingredient—sodium bromide. Long-continued use of bromides, according to Sollmann, leads generally to serious physical and psychic disturbances. Not the least of these are sexual impotence and bromide intoxication. Bastedo adds that even in the treatment of epilepsy, for which bromides have long been used,

“ . . . it is nowadays thought better, except in refractory cases, to take some risk of convulsions rather than to bring a patient into such a hopeless condition of uselessness.”

Bromide intoxication is of rather frequent occurrence, but is only now beginning to be generally recognized. In some of its

symptoms it is so much like sleeping sickness or delirium tremens that only determination of the blood bromide can make the diagnosis certain. The first effect of bromides is sedative—the individual becoming drowsy and apathetic. Later, however, he gets nervous, irritable, even violent, and takes more bromide to calm himself. As intoxication progresses, he becomes confused; his speech is thick and slurred; his legs are unmanageable; he loses all sense of time and place; his memory fails him; he sees enormous animals and tiny people; he thinks he is being persecuted and tries to escape. Eventually he falls into a coma.

Dr. George T. Harding of Columbus, Ohio, brilliant young nephew of the late President, who probably knows more about bromide delirium and the proper treatment for it than anybody else, says it can occur under therapeutic doses in susceptible individuals. In one case that he treated, bromides had been given to control the pain following a leg amputation. Although the circumstances were unusual, the hallucinations seem typical:

“At times he saw gunmen at his window and tried to escape. Miniature dancing girls performed on the mantel. Large animals crossed the room. His wife was drowned in a glass case in the corner of the room; his daughter was brought in to see him in her coffin. Children played in his drinking glass. He welcomed guests to a reception with elaborate gestures. During a lucid interval while being told the nature of his confusion, he turned the sheet down and apologized, ‘I know there aren’t any fish there but I have to look to be sure I don’t see them.’”

Another case that Dr. Harding treated might very easily have been mistaken for delirium tremens, for the man, who was a heavy drinker, had taken the bromide in an effort to sober up. As the case record has it:

“For ten days he was disoriented, saw mice run up his pants’ leg, a duck in the bed, and felt water poured on him by his tormentors. Refused to eat because he suspected he was being poisoned, became violent in his attempts to escape. On tenth day

became lucid, wrote a letter to his mother, but after several hours snakes appeared in his bed."

One wonders how many luckless playboys have been falsely suspected of D. T.'s when they have been guilty only of the effects of some bracer.

Dr. Titus H. Harris and Dr. Abe Hauser of the Department of Neurology and Psychiatry in the University of Texas School of Medicine have also had considerable experience with bromide intoxication. One case they treated was that of a man whose reeling gait and inability to give an account of himself had caused him to be picked up by the police and sent to the hospital. At first he was thought to be suffering from acute alcoholism. He was in a comatose state for three days; then, as he began to improve, he showed typical symptoms of delirium tremens. The blood test, however, disclosed that his trouble was bromide intoxication. Later it was learned that he had been in the habit of taking a bromide prescription as an antidote after his alcoholic sprees. His brother said that he had had several attacks of stupor before, but they had lasted only a day or two. In reporting the case in the *Journal of the American Medical Association*, the physicians commented:

"We feel that this patient had probably been mildly intoxicated with bromide for months or even years. He was in the habit of taking large amounts of the prescription mentioned and was inefficient in his work, never being able to hold a job for any length of time, although he had a good technical education."

Bromide intoxication is due to the readiness with which bromides replace the body chloride when there is not enough salt in the diet. Anything that interferes with the normal absorption of salt predisposes to intoxication if bromides are taken. This seems to be the case particularly with chronic alcoholism; but saltless cooking or any other factor conducive to improper nutrition may also be guilty. Intoxication occurs when 30 per cent. of the chloride has been replaced by bromides; replacement of 40 per cent. is said to be fatal.

A curious aspect of bromide poisoning is the sequence of symptoms and the way this sequence may be reversed—like a motion picture—under salt therapy and the withdrawal of bromides, the coma giving way to hallucinations, extreme irritability, restlessness, and so on backward until the patient is cured. But care and caution are necessary lest the bromide be released from the tissues more rapidly than it can be expelled from the body, for the heightened nervous excitement may give rise to trouble. In a case Dr. Harding describes, that of a *Bromo-Seltzer* addict whose family took him home from the sanitarium, the man committed suicide.

"Most people," according to the advertising, "have their first *Bromo-Seltzer* at the soda fountain." The druggist is provided with the dispensing apparatus free of charge, simply inserting a new bottle as the stuff is used up. One turn of the wheel is supposed to measure out exactly 3% grains of acetanilid, 7½ grains of sodium bromide, and enough caffeine, sodium bicarbonate and citric acid to make up the Emerson-prescribed dose for ordinary headache. If the man behind the soda fountain is careful, he can get sixty doses out of the dispensing bottle—a profit of \$4.75 for the druggist.

But soda-jerkers sometimes are sloppy, as the Emerson Drug Company seems to know, for with each dispenser goes a display card urging the druggist to "stop waste at the soda fountain!" More than the regular dose will not dissolve easily, sticks to the side of the glass and is wasted. Besides, the customer "does not relish a mouthful of undissolved granules." Mixing a *Bromo-Seltzer*, to judge from the instructions, is as much a fine art as mixing a *pousse-café*. But out of the abundance of the Emerson Drug Company's anxiety to please its patrons there emerges no word of warning as to the consequences of overdosage other than the depleting effect on the druggist's profit.

One dose of this insidious habit-former may call for another, and in the course of a year the American people, so it is estimated, spend \$20,000,000 to dope themselves with *Bromo-Seltzer*. Of this vast sum two tithes this year have been consecrated to advertising.

This reckless dispensing of harmful or habit-forming drugs at the soda fountain, in bars and in lunch rooms is certainly not to the public interest. What is equally certain is that it cannot be stopped by Federal statute any more than traffic in liquor could be. But at least you have a right to know what you are getting and whether or not it will imperil your health. Then, if you are willing to take the chance, the consequences are your own responsibility. Warnings at the soda fountain are a matter for the States to take care of. Warnings on packages sold over the counter can and should be required of such products in interstate commerce as may be dangerous when used according to directions.

Under the Wiley Food and Drugs Act the quantity or proportion of any alcohol, morphine, opium, cocaine, heroine, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of these substances that the medicine contains, must be declared on the label. This list by no means exhausts the dangerously potent drugs offered for the home treatment of serious diseases. There are plenty of others that are never even hinted at in the labeling. Because they bring about some pronounced reaction that appeals to the patient, making him think he is getting good results, their harmful effects may not be noticed until too late.

Such a drug is cinchophen, a treacherous coal-tar derivative which enjoys an unfortunate popularity as a cure for rheumatism. The pain and disability attendant on this disease—or rather, group of diseases—make rheumatic sufferers willing to try almost anything that promises relief, and cinchophen does tend to ease pain. It is anything but safe, however, even when used according to directions. When it was first introduced in therapeutics, it was hailed with joy for its supposed effect in eliminating uric acid, then held to be the principal cause of rheumatism. But cinchophen proved a disappointment even before the uric acid theory was abandoned. Far from working the hoped-for cures—though it did allay pain in some cases—it was found to cause death through destruction of the liver. The first fatality was reported in 1925 by Dr. Richard Cabot of Boston,

who said he had "had an extraordinary series of cases of acute yellow atrophy in patients who have been taking this medicine called 'Weldona.'" Since then, other reports of death or serious injury from cinchophen preparations have rolled in so fast that few physicians now prescribe the drug, especially when other analgesics will give just as good temporary relief with less hazard to life and health.

Like so many patent medicines, *Weldona* has frequently changed its formula under the stress of circumstances, the name being the only constant feature of the product. Ten years ago it unquestionably contained cinchophen. Yet when the Food and Drug Administration seized a large shipment in 1932, on a charge of unwarranted therapeutic claims, there was no trace of this poisonous ingredient. Analysis of a recent sample, however, shows that cinchophen has been put back. It is not declared on the label, but under the present inadequate Food and Drugs Act it does not have to be. When a nostrum becomes (according to the advertising) "the largest selling tablet for the relief of the pains of rheumatism, sciatica, neuritis, lumbago, etc. in the world," its legal mentors are more than likely to keep its labeling within the law. *Weldona* now belongs to Wrigley.

When the subject of cinchophen poisoning was under discussion at a convention of the American Medical Association three or four years ago, Dr. Alexander Lambert of New York told about a case he had observed in one of the medical wards in Bellevue. The patient, he said, was pale when he entered the hospital, but under his pallor was an increasing jaundice. He had had "rheumatism"—meaning, as Dr. Lambert remarked, "pain in some joint or somewhere"—and had been doctoring himself with *Harrell's Rheumatism Cure* recommended to him by a neighbor who had used it, supposedly with benefit. His jaundice increased rapidly, and he died of acute yellow atrophy in just a few days.

A characteristic of cinchophen is that its toxic effects may not appear until some time after the drug has been discontinued. Renewal of the treatment by even a single dose may precipitate a fatal attack. The severity of the symptoms seems to bear

no relation to the amount of the drug taken nor to the length of time over which the treatment has been employed. Hyper-susceptibility may have something to do with it; but there is, unfortunately, no way of foretelling who its victims will be. The self-doctor may sincerely believe he has been helped and go on following the directions until the nostrum kills him. Certainly the drug is contraindicated where there is the slightest suspicion of liver, gall-bladder or possibly kidney disease. Quite a number of rheumatic sufferers fall into this class. It does not follow that they know it themselves. In a recent study of hundreds of cases of gall-bladder disease, three fourths of the patients had come to the doctor complaining of stomach symptoms, which were merely a complicating factor. A warning to this group such as the manufacturer of *Renton's Hydrocin Tablets*, another cinchophen nostrum, enclosed in his package is no warning at all:

"In cases where it is known or suspected that biliary dysfunction or diseased liver is present, or is known to have existed, *Renton's Hydrocin Tablets* should be given only under the observation of a physician, for in such cases most medication indicated for Rheumatic conditions would probably predispose to injury."

In other words, the manufacturer discharges his responsibility by telling you that it's up to you to know when you have a disease condition in which cinchophen would be dangerous; if you have, then none of *Hydrocin's* competitors would be safe for you, either. This is the same technique, you remember, that *Inecto* employed. And like *Inecto's* warning, this one too was brought to the attention of the purchaser only after his money was in the hands of the manufacturer. To get a refund, he would have to use the drug for a month if it killed him.

Renton's Hydrocin Tablets without doubt hold the record for death-dealing cinchophen nostrums. According to medical literature, at least a dozen people have died or been brought to the point of death in the last two or three years as a result of using this perilous stuff, and untold numbers more have had their

livers permanently damaged. Many of them, too, may die from evil effects of the drug which have not yet manifested themselves.

The nostrum originated with Porter H. Hovey, a Kansas City building contractor who, on his retirement from active business, went to California for his health. He claims to have been cured there of arthritis by some physician's prescription of cinchophen and tetra-ethyl-ammonium-hydroxide. He had arthritis all right; evidence of a cure is not so certain. Grateful for his own recovery and bubbling over with love and pity for other arthritic sufferers, so he says, he launched *Renton's Rheumatic Tablets*—at twice the price you would have to pay for them by prescription. They were offered, together with dietary advice and a laxative, as a certain, complete and permanent cure for all forms and cases of rheumatism, arthritis, gout, neuritis, etc., on the theory that all of these diseases are due to excess uric acid deposits, and that by use of these tablets normal function would be restored to the joints. The promoter advertised grandly:

“What insulin is doing for diabetes, *Renton's Rheumatic Tablets* are doing for arthritis, neuritis and rheumatism.”

Forbidden by the Food and Drug Administration to make such claims in his labeling, since no drug nor combination of drugs constitutes an effective treatment for all the various ailments known to the layman as rheumatism, and told in no uncertain terms that his product was too dangerous to be sold promiscuously, he changed the name to *Renton's Hydrocin Tablets*. It is a matter of record that he admitted knowing cinchophen to be dangerous in the presence of jaundice. But since his idea seems to have been to protect his profits rather than his customers, he left his formula alone. The most the Food and Drug Administration could do, inasmuch as his labeling was entirely within the law, was to call the product to the attention of the Federal Trade Commission and the Post Office.

Meanwhile, through advertisements in newspapers and over the radio, the nostrum was building up a tidy business of more

than \$100,000 a year. When the Better Business Bureau of New York City protested against the dangerous character of the product and the claims made for it, Hovey replied that he was conducting his advertising in accordance with a stipulation executed with the Federal Trade Commission; that cinchophen was not the most important ingredient and that one investigator said that no claims of injury to the liver were known to have come from the use of the drug.

His advertisements, however, stated that his formula was unchanged—and that formula, analysis had shown, called for cinchophen as the essential ingredient. Obviously, Hovey was familiar with the medical literature dealing with this deadly drug, though he chose to cite but a single investigator—all the others condemning indiscriminate use of the poison and many reporting fatalities.

Among the common early symptoms of cinchophen poisoning are nausea and skin eruptions. Instead of telling the user to stop all medication at once on the approach of these signs of serious, if not fatal, injury to vital organs, Hovey sidestepped the issue in his directions for use by suggesting that the dose be reduced for a short time, recommending also that a diet "rich in carbohydrates" be followed (the last thing a physician would advise), and that ephedrine, lemon juice and baking soda be added to the treatment. None of these things would head off acute yellow atrophy of the liver, even if they succeeded in making the symptoms less apparent.

The case history of a Pennsylvania woman, whose experience with *Renton's Hydrocin Tablets* is reported by Dr. Donald W. Ingham in the *Journal of the American Medical Association* for December 9, 1933, shows what may happen though you follow the manufacturer's advice. She had been suffering for over a year from arthritis and had been treated by a physician with some degree of improvement. In June, however, she abandoned supervised medical treatment and on the advice of a friend obtained a bottle of *Renton's Hydrocin Tablets*. Altogether, she took nearly four bottles (200 tablets) as directed.

"It is interesting to note that when the Hydrocin Tablets were begun, the patient had a severe gastric upset consisting of pain in the epigastrium, nausea and vomiting; also that a rash developed over the face and forehead after each dose of the medicine. She finally discovered that, by taking half the prescribed dose, i. e., half a tablet four times a day, the symptoms were not as severe."

"The patient had always enjoyed good health with the exception of an attack of pneumonia eleven years before and the present condition. There was no history of disease or any symptoms referable to liver dysfunction."

On Thursday, September 7, she noticed that her face was yellow. The next day, she complained of pain in her abdomen. A physician who was called advised her to go to bed. She rose as usual Saturday morning and came downstairs, but she had such a severe pain in the upper part of the abdomen that she was given a hypodermic injection of morphine to put her to sleep. Early in the afternoon her family heard her moaning, but could not arouse her. She was taken then to the hospital. The jaundice had been getting progressively worse since Thursday; in the hospital her skin showed an almost bronze discoloration, with eruptions over the forehead and face. She was running a high fever and was comatose. Symptoms of arthritis deformans were evident in her hands and feet. Her heart and lungs were normal, but the area of liver dulness was decreased. Despite all treatment, the coma deepened; respiration and pulse became more rapid, and she died soon after eleven o'clock that evening. Autopsy showed a badly damaged liver.

Just how willing the promoter was to have his customers know what they were taking, in order to protect themselves from such injury, may be judged from a letter one of them wrote to the Food and Drug Administration:

"I also noted this, that the relief lasted only while the tablets were being taken; if I left them off for a few days I got worse again. I was afraid that even if the arthritis was helped or cured, injury might result to some other organ, so I wrote to

the manufacturers and asked them to please inform me as to the composition of these tablets. It is my understanding that the public has a right to know what the different medicines contain. When the next letter came from this Company, they completely ignored my request, made no mention of it whatsoever; then I wrote again and made the same request, and again they ignored it. I could see no reason why if they were manufacturing these tablets in a legitimate way, that they need be so secretive in regard to what they contained. I began to wonder if they were complying with the law which governs the manufacture of such medicines. After they refused to answer my question, I stopped taking the tablets, for I did not want to run the risk of injuring my health by taking some injurious drug. They never wrote to me again, although before I wrote for the information, they wrote me ever so many letters urging me to continue the treatment, and sending me testimonials of people who had been cured. The fact that they lost interest all at once in my taking their tablets, further aroused my suspicions that they might not be complying with the law in the manufacture of same."

It is not surprising that the manufacturer of *Renton's Hydrocin Tablets* was among the first to put himself on record as opposed to the Copeland Bill, which required the declaration of ingredients on the labels of patent medicines, as well as warnings in the case of those that might be contraindicated under certain conditions, and closed the channels of interstate commerce to all that might be dangerous when used as prescribed in the labeling. About a year after Hovey had registered his disapproval of the measure in a letter to the White House, one of his customers who had had an order to the Renton Company returned by the Post Office stamped "Out of Business" also wrote to the President. This is what she said:

"Upon inquiry I find that the enforcement of the Tugwell Bill has put this firm 'out of business.' If this bill is a necessary one for the public good I suppose I can have no quarrel with it. . . . I have entire confidence in your judgment once a matter has been brought to your personal attention."

No bill, of course, can be "enforced" until it has been enacted into law, and at that time the Copeland Bill had never even come to a vote in Congress. Investigation shows that what actually happened was this: On March 29, 1934, Porter H. Hovey, operating as the Renton Company, Ltd., of Pasadena, *signed a stipulation with the Post Office to stop using the mails to defraud.* Since the above letter was written, by the way, this consumer of *Hydrocin Tablets* has developed symptoms of nausea and "stomach trouble," which it is to be hoped are not due to the nostrum.

Officials of the Proprietary Association, were you to inquire about the present activities of this member company, would probably tell you that *Renton's Hydrocin Tablets* are no longer on the market and there is no reason to make so much fuss about them; that Mr. Hovey is now operating as the Pasadena Products Company; that the treatment for lumbago, neuralgia and other aches and pains which he has been advertising over the radio is *Salrocin*, a mixture of aspirin, acetphenetidin and coffee alkaloid—all quite according to Hoyle. And that's all true. Recently, however, some of the customers on Mr. Hovey's former mailing list have been getting a new treatment for rheumatism—*Hydroxin Tablets*, distributed by the Angelus Laboratories of Los Angeles. According to the formula on the package, this new remedy is composed of tetra-ethyl-ammonium hydroxide and "phenylcinchoninic acid" (cinchophen to you and me), which were the very ingredients of *Renton's Hydrocin Tablets*. The packages too are curiously alike. And, another interesting coincidence—Angelus Laboratories is just another name for the Brunswick Drug Company, a private-formula concern which has manufactured drug products for Mr. Hovey.

Another aspect to the sale of such deadly dangerous preparations as *Renton's Hydrocin Tablets* was pointed out in an article about this nostrum published in the *Journal of the American Medical Association* for January 17, 1931:

"With the increasing number of cases of acute yellow atrophy of the liver following the continued use of cinchophen

it seems little less than criminal that irresponsible 'patent medicine' exploiters should continue to put this potent drug in their secret mixtures, with no warning as to the possible dangers of its continued use. Nor are the large and supposedly respectable pharmaceutical houses which put up such formulas for 'patent medicine' manufacturers, free from a moral responsibility in the matter."

Renton's Hydrocin Tablets, although distributed by Hovey from Pasadena, were usually made for him by Strong, Cobb & Company of Cleveland, a firm specializing in the manufacture of private formulas. When a Texas concern, then known as the Dixie Curat Company, applied to this pharmaceutical house for a formula for a rheumatism remedy a couple of years ago, the chief chemist obligingly complied with three, all of them calling for cinchophen in business-like proportions, and one for potassium iodide as well. This co-operation has since resulted in the exploitation of yet another cinchophen nostrum, to which two deaths—possibly a third—have already been traced. It is *Martin's Specialized Treatment*, 1, 2 & 3, which is advertised over the radio. No claims are made on the label, where they might have to be justified, and no advertising material is sent with the package. The Food and Drug Administration cannot touch the stuff, no matter how many it kills.

Whenever a drug causes spectacular reactions, the possibilities of its exploitation are not long overlooked. In 1933, Cutting and Tainter of Leland Stanford University suggested that dinitrophenol might be of value in treating obesity, hypothyroidism and other conditions of depressed metabolism. Printer's ink was scarcely dry on the report of their experimental work before proprietary fat reducers depending on this treacherous compound for their action had sprung up like mushrooms.

Dinitrophenol has been known as a dye for a hundred years and respected as a poison for more than thirty. During the war it was used in the manufacture of explosives and was then the subject of special investigation because of its strange and untoward effects on munition workers. Absorbing the poison through skin and lungs, these workmen would develop headaches,

nausea, high fever; would lose weight with amazing rapidity; would, in some instances, die suddenly. The purpose of the French investigations was to find some immediate, practical way of overcoming the health hazard in munition plants; this being accomplished, the reports were not published until many years later—about the time that Cutting and Tainter, while warning of its dangers, nevertheless suggested the use of the compound in clinical medicine.

So powerful that an injection in test animals has been known to increase metabolism in one minute, this deadliest of all coal-tar medicines is toxic to everyone and can kill anybody in a big enough dose. The size of a lethal dose seems to vary with the individual—idiosyncrasy probably having something to do with it—so that dosage is unusually difficult to fix. The drug acts directly on the tissues to whip up metabolism—which, as everyone knows, is the process by which food, water and air are adapted to the body's needs. With the increased metabolism more heat is produced than the body can throw off, the temperature sometimes soaring to 115 degrees Fahrenheit. The body tissues furnish the fuel and weight is thereby reduced. But you literally cook yourself to death in your own heat! It is a horrible death, but fortunately a swift one. Eight people are known to have suffered it, and more have barely escaped; how many will eventually succumb to delayed effects that are not yet known is a matter of conjecture. And at least fifteen women have been blinded by cataracts said to have been induced by the drug.

Copious perspiration, warmth, hives (preceded by a day of itching) and a curious impairment of taste that makes it impossible to distinguish between salt and sweet are the usual side-actions of the drug. But there may be others. The hearing of one young woman who took the drug for four days was still affected seven months afterward. In some instances the drug has been found to damage the kidneys and heart. It is more than usually dangerous in cases of chronic rheumatism, alcoholism, tuberculosis, heart, liver and kidney trouble, and above all in diabetes. Yet as practically all diabetics suffer from obesity in

the early stages, they tend to be particularly amenable to the lure of fat reducers—a fact the quacks appreciate. And dinitrophenol is not always successful in reducing weight! Sometimes it fails for no apparent reason.

All reports on dinitrophenol that have so far appeared in medical literature have warned of its dangers and urged that its use be restricted to selected patients under carefully controlled conditions. All have agreed that careless or indiscriminate dosing by the laity is almost certain to prove fatal.

In spite of these facts, all of which are well known, dinitrophenol is freely sold as such in almost any drugstore outside New Jersey, Louisiana and California, where it may be dispensed only on prescription. In the following proprietary “reducing agents” it is offered under labeling that gives no hint of its presence or of its injurious character:

<i>Nitromet</i>	Irwin Neisler & Co., Decatur, Ill.
<i>Nitraphen</i>	A. E. Mallard, Detroit, Mich.
<i>Tabolin</i>	Howard Chemical Co., Oakland, Calif.
<i>Redusols</i>	Dilex Institute, New York, N. Y.
<i>Formula 281</i>	Isabella Laboratories, Chicago, Ill.
<i>Nox-Ben-Ol</i>	R. R. Rogers Chemical Co., San Francisco, Calif.
<i>Aldinol</i>	Rochester Pharmacals, Rochester, Minn.
<i>Formula 17</i>	Health, Inc., Chicago, Ill.
<i>Slim</i>	Forest Hill Pharmacal Co., East Cleveland, Ohio.
<i>Dinitrolac</i>	Cosmos Chemical Co., Union City, N. J.
<i>Dinitroso (Dinitrose)</i>	National Biological Distributors, Inc., Baltimore, Md.
<i>Dinitrenal</i>	Drug Products Co., Inc., Long Island City, N. Y.
<i>Dinitrole</i>	Fraser Tablet Co., Inc., New York City.

To choose one at random, *Formula 17* is peddled by a physician, J. L. Van Valkenburgh, who was putting out a lost-manhood cure (“Lowered Vitality Is Not Hopeless—Be a Man”) when his attention was attracted to dinitrophenol. The

pleasant glow of warmth produced by the drug seems to have appealed to him as a selling point for his make-man treatment. Accordingly, he added a daily dose of the new heat generator—to be taken after supper.

Formula 17, however, is a different nostrum and is aimed particularly at women. Stripped across the advertising circular is the top of a page torn from the Chicago *American* of April 17, 1934, showing a headline eight columns wide:

DOCTORS 'BURN OFF FAT' IN NEW REDUCING METHOD

The rest of the news story is not shown: it points out the dangers of dinitrophenol. No doubt Van Valkenburgh thinks he is giving his customers all the protection they need when he sends their doses day by day and requires weekly reports. At the first sign of hives or disturbed taste he advises that the treatment be stopped. He "guarantees" to return your money if you are not fully satisfied with results, but like the promoter of *Renton's Hydrocin Tablets* he takes your name off his mailing list if you get too inquisitive about his formula.

Dinitrophenol has been found to possess still another doubtful accomplishment. With amidopyrine and the barbituric-acid derivatives, it is now accused of causing agranulocytosis, the baffling malady which somehow brings about a fatal reduction of white blood cells and a corresponding loss of resistance to infection. Its victims are usually women who are sensitive to these drugs; but unfortunately no physician—nor salesman—is able to detect the susceptibles in advance. Before the causative factors were recognized, the disease used to be invariably fatal; it is still serious. The preparations most often suspected of causing it are *Pyramidon*, *Midol*, *Amytal*, *Peralga*, *Veronal*, *Allonal* and *Luminol*, although there are many others also compounded of amidopyrine and the barbiturates—but masquerading under trade names, such as *Lydia Pinkham's Tablets*—that give no clue to their nature, which are just as unsafe for indiscriminate use.

The barbituric-acid compounds are especially popular, for they are very effective sedatives; but they are habit forming and the recommended dose of 5 to 15 grains has been known to cause death. Since they were too new for their effects to be well understood at the time the Food and Drugs Act of 1906 was passed, they were not included, as they should have been, in the list of narcotics that must be declared on the label.

The Pure Food Law also exempts arsenic, belladonna, strychnine and many other highly poisonous drugs from label declarations simply through failure to mention them. The manufacturer, through ignorance or wanton recklessness, may offer them to the public in dangerous dosage without the slightest fear of getting into trouble.

Until the Wiley Food and Drugs Act is brought up to date and such deficiencies are corrected, the self-doctor's only protection against death-dealing drugs is to refuse, like the physician, to prescribe medicines he knows nothing about—to reject any proprietary remedy which does not reveal its formula on the label nor carry enough information to insure safe use.

CHAPTER FIVE

Medicine Swindles, Country Style

THE farmers of this country, who even less than other people can afford to be swindled, spent approximately \$47,460,000 in 1931, for secret proprietary remedies for the diseases of their livestock, including poultry and dogs. Most of it was money thrown away. For sanitation and hygiene, together with serums, vaccines and viruses, are the only satisfactory means, according to veterinary authorities, of controlling the diseases of farm animals. These frauds can no more be stopped under the present Food and Drugs Act than can the traffic in worthless or dangerous nostrums for human use.

Of all the medicines sold for the treatment of "man and other animals," as the Food and Drugs Act puts it, there are more remedies for chicken worms than for anything else. And for a very good reason! Practically all farmers raise chickens, and chickens get worms. Because he can open up the intestinal tract and see them for himself, the farmer attributes all his poultry troubles to the parasites, and knowing that their interference with growth and egg production will mean all the difference between profit and loss for him, he becomes an easy prospect for any nostrum purporting to end them.

Most of the vermifuges on the market are probably effective for removing large roundworms, but not the equally common tape and pin worms. Veterinarians agree that the most satisfactory method of controlling worm infestation is frequent, thorough cleansing of the coops. This sanitary control may not cure individual birds, but by holding down the spread of the parasites to the minimum, it prevents further loss. The farmer,

however, is likely to prefer a remedy that saves him work—something he can put in the drinking water or toss down the chicken's gullet.

Worm medicines may be dangerous! Usually they contain toxic drugs like kamala or nicotine that throw the hen off egg production for several months, doing more harm than good. Some particular drug may be effective for a certain kind of worm; but if a number of drugs are combined in one capsule, with enough of each to obtain the desired results, the dose is too strong for the bird. It is never wise to try out any of these preparations on a large scale. A Minnesota farmer who gave *Lee's Gizzard Capsules* to one hundred young turkeys all at once lost the whole flock within twenty-four hours. The remedy at that time was composed of nicotine, kamala, pyrethrum, graphite and inert sugar. Since then the manufacturer has added copper oxide and chenopodium oil to his formula. Despite his insistence that tests made in his own laboratory justify claims of effectiveness for the new product against all three kinds of worms that infest poultry, the Government has not been able to confirm his findings except in the case of large round worms. Because the remedy is of some value for this one kind, a seizure of the product for false and fraudulent claims for all three was not upheld.

For such poultry diseases as coccidiosis (a costly disease of young chicks), infectious roup, chicken pox, infectious bronchitis, gapes, typhoid, cholera and blackhead, no drug cures are known to veterinary science; but plenty of so-called cures are on the market. A "SURE CURE FOR ROUP" was advertised in the December 1934 issue of the *Country Gentleman*, a publication supposed to have the interests of the farmer at heart; and advertisements of *Dr. Hess Poultry Tablets* which, though not mentioning the disease by name, are obviously aimed at it, appear in the October and November numbers in 1935.

During a drive against fake veterinary remedies a couple of years ago an inspector of the Food and Drug Administration came across a cure for fits in young canaries, psittacosis, cholera and other bird diseases. As the stuff was nothing more than

powdered sodium perborate with effervescent salts—a mixture which could not fulfill the claims made for it on the package—the inspector made an investigation and reported to his chief:

“No doubt this would make a very good fraud case, but I do not think there is anything in the way of punishment that you could give this man unless you intend to hang him.”

For the manufacturer was serving a life sentence in Leavenworth for his third murder! Enforcement officials have often thought that some manufacturers ought to be behind the bars, but this was the first time one had ever been caught conducting his business from that stand. The manufacturer himself, in offering to assume responsibility for the acts of his agents, remarked simply:

“There may be an amusing angle to this last, owing to my situation, which is rather unique from a legal standpoint.”

It transpired that he had killed a man when he was only eighteen years old in a fight over a dance-hall queen in Alaska. Sent to McNeil Island Prison, he stabbed and killed a guard. Transferred to Leavenworth, he celebrated St. Patrick's Day in 1916 by stabbing another guard to death. Three times he has been sentenced to die; three times he has escaped execution. The last time his mother persuaded President Wilson to commute his sentence to life imprisonment only two days before he was scheduled to be hanged. When the Food and Drug Administration encountered him, he had been in solitary confinement for seventeen years, and for eleven years had been raising canaries in his cell as a means of supporting his mother. The sale of his nostrum was conducted through a secretary on the outside. On learning that all misbranded shipments in interstate commerce would be subject to seizure, he abandoned his medicine business. Recently he was offered an opportunity to leave the “punishment hole”—to go back to regular prison life, eat with the other men, see the movies and enjoy other privileges; but he declined. He would rather stay with his canaries.

The biggest disease problem the dairy farmer must cope with

is contagious abortion. Once it gets into his herd, there is no way of knowing what course it will take nor how long it will continue to do damage. But while it prevails, it means loss through premature calves, loss through the shortened milking term, loss through subsequent breeding troubles. Transmitted to man, the germ causes the long, debilitating illness known as undulant fever. A Government scientist who contracted the disease while experimenting with it in cows has been kept from his work for more than two years.

Veterinary authorities agree that the only effective way of dealing with contagious abortion is to blood-test it out of the herd—to segregate, kill if necessary, the animals found to have a positive reaction. Described as “self-limited,” it tends to die out in any given herd unless new susceptible animals are added.

According to scientists at the Colorado Agricultural College’s Experiment Station, where the disease has been carefully studied:

“The owner who finds himself faced with abortion disease has a choice of several procedures to follow. He may take no steps toward elimination of the disease, in which case he will be in company with the majority. In this case he not infrequently suffers a serious loss of calves in one year only, to be followed by a subsidence of disease with occasional flare-ups during subsequent years. This course sooner or later leads to such insidious losses that he falls an easy victim to ignorant or unscrupulous advertising and starts thru the gamut of the so-called cures. It may be stated as a positive fact that no medicinal remedy has yet been found that in a scientific test has proved itself of any value whatever in controlling the disease.” *

The Food and Drug Administration, however, has seized scores of nostrums purporting to cure the disease. Some of them have been simple, inexpensive drugs disguised in various ways; some have been mineral mixtures with or without drugs of any kind; others have been drugs supposed to have a stimu-

* *Bulletin No. 317, “Control of Abortion Disease by Blood Testing and Segregation,” by I. E. Newsom and Floyd Cross, Colorado Agricultural College, Experiment Station.*

lant effect on the circulation. None of them would be of the slightest value in the treatment of contagious abortion or any of the conditions which follow it, such as sterility and other breeding troubles. All trade on the despair of the farmer and his ignorance in respect to scientific control of disease. Since he usually gets around to try the nostrum about the time the disease has run its natural course and is dying out of the herd, he delightedly attributes any decrease in abortions to the new remedy and tends to rely on it rather than take the sanitary measures he should. For if susceptible animals are added to the herd, the disease flares up again with added intensity and the whole herd is endangered by the new virulent strain.

Suppose you were a dairy farmer and contagious abortion broke out in your herd, threatening to destroy your livelihood—what would you do if you saw an advertisement like this in the paper:

“COWS LOSING CALVES PREMATURELY (abortion). Ruinous contagious disease stopped quickly and permanently prevented, no matter what anyone tells you. Inexpensive, guaranteed. You cannot lose. Unparalleled record. Non-breeding corrective included free. Remarkable references and official honors. Bellwood Farms, South Richmond, Virginia.”

If you answered it, here is part of the circular letter you would receive in reply:

BELLWOOD FARMS
South Richmond, Virginia

“DEAR SIR:

“After 35 years extensive experience, we believe we have the only *real* Abortion remedy. Some years ago, after curing our own herd, it was so remarkably healthy as to soon become the most profitable—per cow—in the entire State. What it will do toward putting one herd in such wonderful form it will very naturally do to others, and only *healthy* cows can produce to their fullest capacity. Abortion never returned, and we do not expect it to, we so thoroughly control it. The process is very simple with no disagreeable features. You may do the same as

we have never known it to fail, and what a relief it is to have ones herd cleaned up. . . .

"Owing to the depression we have cut our price from \$25.00 to \$10.00 for a 2 years supply for up to 40 cows and include *free* our double treatment for non-breeders. Almost 100% certain. . . .

"Abortion is a fearful disease. For your own sake *Don't neglect it*. One premature calf is a serious warning of trouble ahead, for it is very contagious and when once well started can soon wreck a herd shockingly. As a 50 million dollar annual loss conclusively proves.

"\$10.00 is no consideration when compared with having all your cows safe and in a highly productive condition.

"Note this carefully.

With our Abortion remedy you have—No douching, drenching, injections or expensive useless vaccination or blood tests. No odors, and no animal refuses to take it freely in her feed, no selling or separation of cows.

"The widespread impression that Contagious Abortion is not preventable, is a very serious mistake as it discourages stockmen from even trying to protect themselves against that appalling 50 million dollar annual loss, most of which *we know* can be avoided, together with infinite worry.

"A 100% remedy for any disease of man or beast, was perhaps never known or ever will be but the sworn statement before a Notary Public should be convincing proof that regardless of what anyone says Abortion (losing calves prematurely) can be, and is being quickly stopped and prevented almost without fail.

"Yours very truly,

BELLWOOD FARMS
ECB"

Should you then scrape together the necessary \$25 (or \$10 at the present bargain rate), you would get back a pound package of white powder, together with the free "non-breeding corrective"—a wooden plug-like device and rubber hose. This latter you had better throw away; even in the hands of a skilled vet it might seriously injure or possibly kill the animal on which it was tried.

How about the powder?

Government chemists and microanalytical experts report that it consists essentially of cornstarch with about .4 per cent. potassium permanganate (to turn it pink when mixed with water) and slight traces of such impurities as might be expected to accompany those substances.

Edmund C. Bellwood, however, protests that his product contains an ingredient not detected by the Government analysts and so remarkable that only an infinitesimal quantity is combined—by a secret “process”—with thirty pounds of cornstarch.

Scientists, who tend to be hard-boiled in such matters, retort that on that basis one dose would contain $3/72,000$ of the “infinitesimal amount” of the miracle-worker, which would have to be supernatural indeed to have any effect. They reiterate that the simple constituents of the nostrum are not combined chemically but are mixed mechanically, and have no therapeutic value whatever. While potassium permanganate has antiseptic and germicidal properties in a solution of proper strength, it is so affected in a solution of water and cornstarch as to be inert. Such a minute proportion would be insignificant, anyway.

In the advertising of this preparation, which is sold in every State in the Union, there has recently appeared this statement:

“We have been investigated by the U. S. Government for your protection.”

It happens to be true. For many months inspectors of the Food and Drug Administration and the Post Office have been collecting evidence against this manufacturer with a view to prosecuting him for defrauding the farmers, who, one would think, have about enough to put up with. The Post Office under its comparatively simple procedure was able to slap down a fraud order quickly. But the Food and Drug Administration, beside being crippled by the fraud joker in the law, had to fight its battle as always before a court and jury.

The jury disagreed. Some of its members seem to have been impressed by Bellwood’s “faith” in a letter from the advertising

manager of some farm paper to the effect that he had received no complaints against the product: if the farmers who used it were satisfied, surely the manufacturer had a right to believe it was good!

Others on the jury, however, may have been made skeptical of Bellwood's pose as an unsophisticated farmer when it was brought out that in 1920 he sold off his herd of eighty cows as tuberculin-tested after he had defeated the test by a trick. Later he was compelled to make restitution to the purchasers in whose herds reacting cows were found by the State.

At any rate, the Food and Drug Administration had to spend more taxpayers' money out of its meager appropriation in a retrial of the case. Though the Government surmounted the fraud hurdle in the second trial, the result was the same as in any other case brought under the worn-out Food and Drugs Act: Bellwood can simply move his false and fraudulent claims from the label into his advertising and the Administration can like it or not.

For that is what happened when the Government won a seizure action against *Bowman's Abortion Remedy*. The manufacturer revised his labeling so as to eliminate all reference to abortion or any other disease condition. But in magazines, farm papers, bulletins and letters he still represents his mixture of brown sugar and wheat bran as a preventive and treatment of contagious abortion. With no authority over advertising, the Food and Drug Administration is unable to stop him. Indeed, for a while he was actually using a letter from the Federal Trade Commission, which stated that after investigating his "alleged unfair methods of competition" and finding "no necessity for the exercise of its remedial powers," the Commission had dismissed a complaint against him.

Kow-Kare, a mixture of plant and mineral materials exploited by the Dairy Association Company, Inc. of Lyndonville, Vt., used to be labeled as an abortion treatment in the days when it was known as *Kow-Kure*. But the name and the label have long since been revised—to avoid action by the Food and Drug Administration, and all are now as law-abiding as can be. The ad-

vertising in the *Country Gentleman* during the winter of 1934-5 still hinted at contagious abortion, however. It also made entirely unwarranted claims for increasing milk production, for which no drugs are of any earthly use. But advertising is quite beyond the reach of the Food and Drugs Act, and the Federal Trade Commission, when the false advertising of this product was referred to it, again found "no necessity for the exercise of its remedial powers."

Another product put out by the Dairy Association Company, Inc., is a turpentine ointment called *Bag Balm*, which is advertised in the *Country Gentleman* as a treatment for caked udder, or mastitis. There is no effective drug treatment for this disease. It is a very serious inflammation of the tissues, usually caused by streptococcus—the bug with the meanest disposition of all—and is nothing to fool with. While the cow may recover, it is usually cheaper to send her to the butcher, for the disease is not only stubborn but highly infectious, and the farmer may spread it from cow to cow as he milks. Health officials have traced many an epidemic of septic sore throat in human beings to milk from mastitic cows. Such claims as those made for *Bag Balm* in the *Country Gentleman* are therefore a menace to the public health. The Curtis Publishing Company could refuse to accept such advertising; the Administration is powerless to do anything.

Hogs always come in for their share of frauds. To the hog raisers of the Middle West necrotic enteritis—or necro, as it is commonly called—is anything but a joke. A filth disease, it is disastrous to young pigs particularly, causing them to waste away and die. The animal is a total loss, along with the cost of his keep, for the meat is unfit to eat and is condemned for human consumption. No drug will cure necro, but a change of environment and fresh, clean quarters will accomplish wonders. When the Government was conducting extensive tests on necro remedies at Iowa State Agricultural College, there was great difficulty in keeping the infected hogs sick long enough in their new, clean surroundings to try out the drugs. The quacks, appreciating the importance of cleanliness in treating this disease,

make a point of advising a top-of-the-hill sty for hogs under treatment. The farmer, however, is likely to credit any beneficial results to the nostrum.

One necro remedy that goes merrily on despite many court actions under the Food and Drugs Law is *Liquid Hog Health*, or *Liquid Hog Medicine* as it is now called, a product of the General Veterinary Laboratories of Omaha. It consists chiefly of ordinary lye camouflaged by other drugs; indeed an impressive proportion of "Calcium hydroxide" is frankly declared on the label—if the farmer knows what it means! The preparation's only value lies in the fact that oats soaked in the solution become soft and are more easily digested; but plain water would serve just as well.

Liquid Hog Medicine was the idea of Wright W. Cochrane who, as attorney for the Drovers' Veterinary Union of Omaha, saw how easy it would be to make money off the farmers. He has not been disappointed, for his nostrum brought him in \$12,000 the first month of its existence. It has continued to rake in the shekels, despite its lack of fancy claims on the label, not because it has merit, but because it can still make those claims in farm papers and over the radio.

The livestock diseases which all these various types of nostrums do so much to perpetuate exact an annual toll of \$250,000,000 paid for by the blood and sweat of the farmer. A revision of the Food and Drugs Act to make that statutory weapon a real defense against the vultures battenning on these frauds would contribute no small measure of farm relief.

CHAPTER SIX

It's a Racket!

IT is an ironical fact that rigorous enforcement of the Pure Food Law has made possible the exploitation of meretricious products—or of legitimate products through meretricious claims—on a scale undreamed of by those who framed the statute. By limiting control of sales talk to that found on or in the package, the act has forced fraudulent selling appeals out into the wide, open spaces of collateral advertising where they may romp without restraint and, in their coursing, round up vast herds of victims who would never have been snared by the label.

Let us turn back the dial for a year or so and tune in again on a *Crazy Crystal* program coming through dozens of radio stations all over the land. We have missed the station announcement and a hymn or two, but we're just in time to hear the sponsor himself:

"Ladies and gentlemen, Mr. Hal H. Collins has a message for you. Mr. Collins is president of the Crazy Water Company." MR. COLLINS: "My friends: I believe that everyone who hears my voice will be benefited by the story of the woman who dreamed she died and went to Heaven. There was a certain woman, member of a fashionable church, who was prominent in social life, who dreamed she died and went to Heaven. St. Peter passed her on to an angel to take her to the place prepared for her. As they passed along the streets lined with beautiful mansions, she began to wonder which was hers. They came to one mansion more beautiful than the rest and she could not repress the question, 'Whose house is this?' The angel re-

plied, 'That of Robert O'Leary.' The woman then asked, 'Robert O'Leary, our gardener?' 'Yes,' the angel replied. The woman then said, 'He will not know how to act in such a place as this. He was only a poor man. His wife even took in washing.' The angel replied, 'There was never a day that he didn't send up some good deed or kind act. We always build according to the material sent up and this home represents the result of Robert O'Leary's treasures laid up in Heaven.'

"They passed on where the streets were narrow and finally came to a cottage that was very small and plain. 'Whose house is this?' the woman asked. 'Yours,' replied the angel. 'Mine?' asked the woman. 'I cannot live in such a place. What would my friends think to find me in such a house? I would be ashamed to be found here.' The angel replied, 'We always build according to the material sent up. We have watched carefully all these years and this is the best we can do with the material you have sent up.'

"Ladies and gentlemen, what you have heard me tell is reality and not a dream. Men and women are daily furnishing the material for their eternal home. Many of you are passing on to others the blessings that have come into your lives. If you will make up your minds right now to give those with whom you come in contact the benefit of the treasures you have uncovered on Earth, you will be sending up the material to build your home in Eternity.

"Health is the greatest blessing bestowed upon the people. Simple, natural things have done more to improve and benefit the health of mankind than all the drugs and medicines the world has ever known. Our Creator gave the world a renowned water known as 'Crazy Mineral Water,' which has brought back health to many people. This water was accidentally discovered more than fifty years ago in Texas. Through its effectiveness in bringing back health after all treatments have failed, it has become appreciated and known by people everywhere. Its merit alone has caused it to be recommended from friend to friend until today millions are 'drinking their way to health' in the simple, natural way. Just drink Crazy Water.

"We wish it were possible for you to read the thousands of unsolicited letters we receive. We would be glad to have

you write the persons who make these statements and get from them first-hand information about Crazy Water. Here is a letter from Birmingham, Alabama:

"I was a sufferer from arthritis and inflammation of the bladder for several years. After hearing so much about Crazy Water Crystals I decided to try one more thing. I now have no bladder trouble, my arthritis is gone and I can eat anything I want.

(Signed) *'Mrs. W. H. Alcorn
6816 First Avenue South
Birmingham, Alabama'*

"Crazy Water Crystals are made by open kettle evaporation. Crazy Water is now available to you at your own home at a price you can afford to pay. It is not a thing but crystallized mineral water. Just add to your drinking water according to directions.

"It cures ailments brought on by constipation, high blood pressure, rheumatism, arthritis, liver and kidney troubles, auto-intoxication, bad complexion, excess acidity, or something else of a more serious nature. Start today using Crazy Water Crystals, the natural way to health."

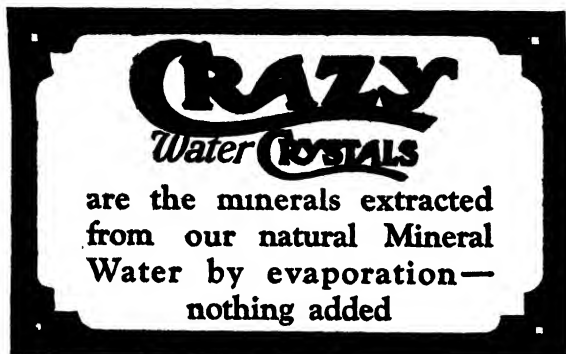
Let's look at the package! On the top it says simply:



On one end is printed:



Turning it around, we find on the other end:



Along one side we may read:



And on the other side are the

DIRECTIONS

A Mineral water should be made as nearly like the natural water as possible. Do not use "Crazy"-Water Crystals in strong doses as you would salts or a laxative drug. A teaspoonful in twelve to twenty ounces of water (one large glass or two small glasses) is about the correct proportion. Increase or decrease the amount of "Crazy"-Water used in keeping with your individual requirements. Drink "Crazy"-Water regularly, consistently and for a reasonable length of time.

Do not drink with or just after meals. "Crazy"-Water can be taken freely between meals. A couple of glasses of "Crazy"-Water taken thirty minutes before breakfast for a mild laxative is very effective.

CRAZY WATER COMPANY

MINERAL WELLS, TEXAS

Now you may think it strange when the manufacturer is willing to spend hundreds of dollars a minute to tell you over the radio that his *Crazy Water* will cure rheumatism, arthritis, high blood pressure and all the rest of it that he does not make such claims on his package where it would cost him nothing.

But he knows better. For he tried it a few years ago, not long after he acquired the *Crazy Water* business. Up to that time *Crazy Water* had figured in thirteen court actions under the Pure Food Law, the charges involving not only misbranding because of false and fraudulent claims, but adulteration because of pollution. The previous manufacturer had been prosecuted on those charges in 1922 and, on a plea of guilty, had been fined \$100. Shortly thereafter the claims for rheumatism, functional stomach troubles, liver diseases (not organic), cystitis, diabetes and Bright's disease were taken off the interstate label. One of the first things the new proprietor did was to put them back. The prompt seizure of his interstate shipments, however, showed him the folly of trying to run counter to the law when *Crazy Water* had such a record: here was one product in the sale of which the Government would never have difficulty in proving a fraudulent intent. To get back fifteen cases of *Crazy Water* under bond for relabeling after several cases had already

been destroyed by order of the court, *the manufacturer admitted this his claims for the product were false and fraudulent*. Since 1928, therefore, he has made no curative claims of any kind either on or in the package. He makes them in his advertising instead!

As the jurisdiction of the Pure Food Law does not extend beyond the package, the most the Food and Drug Administration can do now to protect the public against these fraudulent claims is to give out information about the court actions in which *Crazy Water* has been involved since the present owner took it over. When the manufacturer objected to such publicity a couple of years ago, W. G. Campbell, Chief of the Food and Drug Administration, wrote him a sharp letter:

"It is true that the claims formerly made for this product in the treatment of such serious diseases as rheumatism, constipation, functional stomach diseases, liver diseases, cystitis, diabetes, Bright's disease, and the like, are no longer to be found on the labels of the package, and for that reason the interstate shipment of your product is not in violation of the law. Your practice of having agents and local distributors circularize prospective customers with pamphlets in which such claims are brazenly set forth is a circumvention of the act which we recognize we are impotent to prevent. Our inability, on account of legal limitations, to protect the public in these circumstances makes the practice none the less reprehensible. It is difficult for me to reconcile these operations with the statement made in your letter that you have spared no effort to make your properties rate 100% in the eyes of the Food and Drug Administration.

"Certainly we shall continue to distribute the three notices of judgment covering false and fraudulent therapeutic declarations. If we do this without making any comment on the inefficacy of this product for the treatment of these serious ills, it will be an act on the part of public service officials of most unusual restraint. It is my purpose to have a statement of the facts as we know them distributed by our Office of Cooperation to State officials for their information and for the inauguration of whatever measures they think proper for the

protection of the public against the sale of your product under false representations made in a manner beyond the power of existing Federal legislation to control."

The manufacturer, however, has never been reconciled to the notion that the public has any right to know the facts about his product. At a Senate hearing on the Copeland Bill his attorney, the Honorable Thomas B. Love (a former Assistant Secretary of the Treasury, by the way) submitted a brief in which he proposed an amendment to the measure that would restrict the distribution of notices of judgment:

"It would seem obvious that no useful purpose can be subserved by the dissemination by the Government of old, stale, judgments affecting the reputation and business of a person or firm which is no longer violating any law or even the proprieties."

Crazy Water, because of the freight rates, has always been expensive to handle, and in recent years it has been found more profitable to concentrate on the crystals obtained by evaporation. The theory is that by adding *Crazy Water Crystals* to your drinking water you produce "Crazy Mineral Water." This magic potion, you are told in the advertising, derives strange and wonderful properties from "a variety of minerals."

But does it? Analysis shows that *Crazy Water Crystals* are essentially Glauber's salt (that is to say, they are 98 per cent. sodium sulphate)—a horse physic that has not been used to any extent in human medicine for years. With every pound package of *Crazy Water Crystals* you get approximately 117 teaspoonfuls of crystals. Of these, proportionately, 115 are Glauber's salt; one is ordinary table salt; one-half teaspoonful is Epsom salt; and the remaining half teaspoonful is "a variety of minerals"—including washing soda!

In the natural mineral water the proportion of Glauber's salt is somewhat lower. Less soluble than the other salts, sodium sulphate crystallizes out more abundantly, most of the other minerals being drained away in the residual liquor. Even if

you added the crystals to distilled water you could not possibly reproduce the natural mineral water. And of course the composition of drinking water varies so widely in different parts of the country that in Maine, let us say, you would not concoct the same "Crazy Mineral Water" you would in California or Tennessee.

Except for the claims made for them, probably the most remarkable thing about *Crazy Water Crystals* is the price—one dollar, recently marked down from \$1.50! Under its common name you can buy Glauber's salt at any drugstore for 25-40 cents, depending on whether you get it for yourself or your horse. As a matter of fact, when I was checking on the price last year, I discovered a vet supply house here in Washington where you would have to pay only 15 cents. And one druggist made me a special price: "Lady, you mean *Crazy Crystals*. They're usually \$1.50, but I tell you what I'll do: I'll let you have 'em in a plain package for only 50 cents and nobody'll know what you're taking!"

Because the lack of control over fraudulent advertising has made it possible thus to exploit a simple, inexpensive drug as a miraculous cure-all, an exhibit of *Crazy Water Crystals* showing the disparity between the label and the collateral advertising was put up in the so-called "Chamber of Horrors." This collection of dangerous or fraudulent products, assembled originally for the Senate hearings on the Copeland Bill, aroused so much interest while it was in course of preparation that it was sent along to Chicago as part of the Department of Agriculture's display at the Century of Progress Exposition. Except for the cost of the samples (\$1.50 for a pound of Glauber's salt was admittedly pretty steep) none of the exhibits cost more than a dollar or so. But their very simplicity made them the more effective, for the facts they disclosed were sensational enough in themselves to require no particular emphasis.

The manufacturer of *Crazy Water Crystals* was wild. His frantic appeals to the Department to take down the exhibit, however, met with an adamant refusal: so long as he continued to advertise his product for the treatment of diseases in which

ADVERTISING NOT SUBJECT TO ACT REVISED LABELING UNOBJECTIONAL

NEURALGIA

DIABETES

CARDIAC DISEASES

NERVOUS DISORDERS

NEPHRITIS

CYSTITIS

RHEUMATISM

ARTHRITIS

GOUT

Mountain Valley Mineral Water

Note truncation of false claims from the label to the advertising matter following the seizure detailed here.

Mountain Valley Water has a composition similar to that of the tap water in Washington, D. C., and is of no more therapeutic value in treating the serious diseases for which it is advertised than any other good drinking water. (Reproduction from a Government exhibit.)

it had no therapeutic worth the exhibit would be used to show the need for control over advertising. It was pointed out to him that the value of *Crazy Water Crystals* was solely that of a cathartic and mild diuretic. The only permissible claims, therefore, would be to the effect that when the physical fault was due to improper elimination and a good cathartic would improve the general health, *Crazy Water Crystals* would fill the bill.

Just as the manufacturer had been willing in 1927 to admit the falsity of his label claims in order to save further shipments from destruction, so now he agreed to revise his advertising. You may remember that for some time he talked only about "faulty elimination." The Department, keeping faith with its agreement, removed the exhibit as it was no longer an apt illustration.

A few weeks later, Mr. Thomas B. Love, attorney for the Crazy Water Company, proposed an amendment to the Cope-land Bill which would permit the free dissemination of "opinion" on the label and in the advertising of naturally produced mineral waters or the salts from their evaporation. In support of this interesting contribution to a measure designed for the protection of the public Mr. Love, with his usual engaging frankness, "respectfully submitted that,"

"whatever harm may result from the sale, through the direct or implied misrepresentation of the therapeutic use and values, of synthetically produced drugs and medicines, no harm has ever resulted, or is likely to result from the misrepresentation of the remedial or therapeutic effect of naturally produced mineral waters."

In response to criticisms from State enforcement officials and individual consumers, the manufacturer of *Crazy Water Crystals* has lately been representing that his sales methods are now approved by the Food and Drug Administration. Nothing could be further from the truth. For while the advertising for some months was cautiously worded to avoid mention of actual diseases, more recently the manufacturer has not hesitated to

offer his nostrum for the treatment of rheumatism, arthritis—even diabetes. So flagrant has been his flouting of the agreement that in July, 1934, the Chief of the Food and Drug Administration was obliged to write him once more:

“Both the record of happenings since that date and our more mature conclusions in the light of our present technical advice are that reference under any circumstances to such diseases as arthritis, neuritis, rheumatism and disturbances of the stomach should not be made in the labeling or advertisements of a product of the composition of Crazy Crystals.”

Obviously, the only way to put a stop to such outrageous deception of the public is through the legal control of collateral advertising. But just as they have been doing ever since the Copeland Bill was first introduced, not only the manufacturer, but the local representatives of the Crazy Water Company in every State of the Union will no doubt continue to bring all possible pressure to bear in an effort to prevent enactment of a strong new law.

A few months ago *Crazy Water Crystals* were threatened with a glamorous rival—*Warm Springs Crystals* sent you “direct from the Nation’s Health Resort.” Labeled and advertised to give the impression that the crystals were produced by evaporating the waters of the famous springs, this fraud was nothing more than Glauber’s salt again, purchased in barrel lots in Atlanta at 2 cents a pound and shipped from Warm Springs, where it was “manufactured,” at a profit of 4900 per cent. on the cost of the material. The predominating mineral constituents of the waters at Warm Springs do not happen to include Glauber’s salt; but as a retail druggist told the Oklahoma representative when she consulted him about paying \$2000 for the State agency, you could “sell even sand at a dollar a box if it was labeled Warm Springs.”

Credit for the idea of putting out such a preparation as *Warm Springs Crystals* belongs to Mallory H. Taylor, Jr. He is now thinking it over in the Federal penitentiary to which he was sent on his conviction of conspiracy to violate the Food and

Drugs Act. His former partner, Curtis J. Hazelrigs, to whom he sold his share of the enterprise for \$25, was also sent to prison for two years; but their sales manager, Walter C. Dunham, who pleaded guilty, has served out his sentence of a year and a day in the Federal penitentiary. They made the mistake, you see, of putting their misleading, false and fraudulent statements on their label, thus bringing their nostrum within the jurisdiction of the Food and Drugs Act. In consequence their interstate shipments were promptly seized. Had the promoters of *Warm Springs Crystals* been as foxy as their Texas competitors have learned to be, they would have confined their imaginative efforts to their advertising—and built up as profitable a racket as *Crazy Water Crystals*.

This business of labeling a laxative is an important consideration for one who would muscle in on the racket in a big way. For you don't just label your product as what it is unless you are obliged to! The crippled victim of arthritis who would never be fooled into thinking that a simple cathartic would cure his disease may yet be persuaded to pay a fancy price for a mixture of Epsom and Glauber's salts if it masquerades under a fancy name, say *Sleepy Salts*, and the label is enticingly worded. On the other hand, people who are looking for a laxative but are nervous, and properly so, about taking phenolphthalein—that insidious coal-tar derivative which has proved so much more harmful than was anticipated—will nevertheless accept it as *Cascarets* under a label that until very recently gave no hint of its presence, even though it is the active ingredient of the preparation. But to what extent can the manufacturer get away with such labels under a law that forbids false and misleading statements? Perplexed by these problems, one manufacturer appealed to the *Drug and Cosmetic Industry* for advice. The correspondence is quoted from the issue of May, 1934:

"We are about to market a laxative and are uncertain as to what we should put on our label. Do you think it would be wise to submit our label to the Food and Drug Administration before placing the product on the market so as to avoid seizures

which might give the product a bad reputation before it gets well under way?" Boston.

"If you wish to avoid trouble it would be well to submit your label statements to the Food and Drug Administration before you attempt to market your product. However, it is not always wise meekly to accept every suggestion which the Administration makes. Remember that when you are dealing with the Administration you are dealing with a group of people prejudiced in the interests of the public. These officials are most apt to lean too far in that direction."

True enough, the Administration is unsympathetic, frankly so, to such attempts to work deception on the public, and *Sleepy Salts* and *Cascarets* have both been seized within the last few months. While the manufacturers may thus be forced to clean up their labels, the Administration unfortunately can pursue its prophylactic operations no further since it has no authority over the advertising, where the initial deception is perpetrated.

Americans are notoriously addicted to the laxative habit, partly*because it is a universal human trait to accept the easiest solution of any problem and partly because their importunate but misguided mothers worried them as children into a constipation neurosis. The habit is universally condemned by physicians—even though they are so greatly indebted to its consequences for much of their practice. Habitual use of laxative drugs is one of the most common causes of spastic colitis; it may also give rise to anemia, gastritis, neurasthenia, skin disturbances and a host of other ills. It is credited in large measure with the alarming increase in the death rate from appendicitis in recent years. A survey in Philadelphia revealed that 437 out of the 481 deaths from spreading peritonitis in that city during the previous four years were due to laxatives. And Dr. Charles W. Mayo has publicly stated that about 95 per cent of the deaths from appendicitis at the famous Rochester clinic occurred in the group having a history of taking laxatives.

In spite of the harm known to result from the excessive consumption of these drugs, the advertising for such products is

directed to still wider and more indiscriminate use: Laxatives not only once a week or once a month, but laxatives every day and several times a day are urged upon you. Sales must be increased!

The boldest of these marauders on the public health are the cathartics sold as fat-reducers, for unless they are careless about making therapeutic claims on their labels, their transgressions are not amenable to the Food and Drugs Act. That is to say, preparations sold only for the cure of obesity are not "drugs" within the meaning of the law since unwanted pounds of flesh are not generally recognized as a disease condition. Hence, when Margaret George of before-and-after fame tells you how she "lost 62 pounds of ugly fat in 3 months" by drinking *Germania Herb Tea*, the Food and Drug Administration is not authorized to dispute her claims by seizing this senna laxative, for its label does not violate the law. By an interesting coincidence, this Margaret George was making personal appearances at Liggett's and other drug and department stores at the same time the *Chicago Tribune* was conducting its annual cooking school—and the advertising for *Germania Herb Tea* was running in the paper. She turned up at every session and on being introduced to the class regaled them with an account of her "wonderful experience"—how she "simply drank delicious *Germania Herb Tea* with meals and the fat dropped off like magic."

The reducing tea is one of a line of fourteen put out by the Germania Tea Company for kidney, liver, gall-bladder, stomach and lung troubles, anemia, diabetes and other ailments. Though Cary Beyer, the quack at the head of the outfit, holds no authentic medical degree nor any license to practice medicine, he is accustomed to refer to himself as Dr. Beyer, a habit that tripped him up a few years ago when he was running one of his "clinics" in Minneapolis. Pleading guilty to practicing healing without a basic science certificate, he paid a fine of \$200 rather than serve sixty days in the workhouse.

The stars must have been against Beyer about that time, for he had still other troubles—notably with a counterfeit of his

reducing tea that threatened to kill his racket entirely. Not only did the spurious product poach on his sales territory, but it had somehow been adulterated with atropine and poisoned his customers! Several cases of poisoning occurred in Ohio and, a little later, one in Trenton, New Jersey, the girl in this case temporarily losing her sight. Investigation showed that the counterfeit tea was bootlegged by a disgruntled former salesman of the *Germania* concern who was operating from a hotel room in Peoria. Paying approximately 5 cents apiece, or about \$7 a gross, for the unlabeled packages he got from a slipshod manufacturer, this fellow peddled them under an imitation of the real *Germania Herb Tea* label for \$90 a gross. The Food and Drug Administration, as soon as the first poisoning case was reported, ran down every interstate shipment and cooperated as well with local authorities in getting all of the stuff out of the channels of commerce. Every package that could be found was destroyed. Seizure in this instance was possible under the Food and Drugs Act because, as a counterfeit, the preparation was falsely labeled as to the name of the manufacturer and the place of origin. Moreover, its therapeutic claims were false and fraudulent since its laxative value would be affected by its poisonous content. The dangerous character of the product, however, would not of itself have been grounds for action any more than in the case of radium, cinchophen, dinitrophenol or any other deadly drug.

Those 62 pounds of lost fat that Margaret George chalked up to the credit of *Germania Herb Tea* make a pretty good showing; but for all that, the Grand Prize in the Reducing Racket Sweepstakes must go to *Kruschen Salts*, for Miss Nellie Simpson of Swissvale, Pa., testified that by taking this mixture of Epsom, table, and other common salts (with its dash of potassium iodide, presumably to act upon the thyroid and speed up metabolism) she had succeeded in reducing her avoirdupois as much as 102 pounds. Though this cathartic has since gone high-hat and crashed the aristocratic pages of *Vogue* and *Harper's Bazaar*, it was with just such old-time circus stuff as Nellie

Simpson's testimonial and before-and-after pictures that *Kruschen* started the present epidemic of reduction-by-purging.

Jad Salts, which had suffered a head-on collision with the meat industry some years before ("Too Much Meat Hurts Kidneys") as well as multiple seizures under the Food and Drugs Act, was delighted with this new selling appeal and lost no time in getting a ride on the vast sums spent to advertise *Kruschen*. Promising to reduce your weight "a pound a day on a full stomach" if you but follow directions, the manufacturer, like all the other reducing racketeers, has been careful to recommend a regimen of diet and exercise, and to include in every advertisement a significant note to this effect:

"The *Condensed JAD Salts*, remember, is urged as a poison-banishing agent and to banish unhealthy bloating . . . not as a reducing one."

The most elaborate of all the reducing programs, however, is the one which accompanies *Dr. McCasky's Prescription Tablets*. It has the distinction, moreover, of originating with a real M. D.—Donald Gilbert McCasky, a graduate of Fordham, with a medical degree from Pennsylvania. Dr. McCasky, according to the advertising, is "an internationally recognized authority on weight control, basal metabolism, electro-cardiography and blood chemistry." The regime he advises includes not only the usual diet and exercise, but also Epsom salt baths (presumably *Fayro*, in which he takes a kindly interest) and the Fro-tage Treatment. This is a daily stiff brushing with Epsom salts—a handful to a basin of water. His *Prescription Tablets* used to be compounded of potassium chloride, cane sugar, potato starch, saccharin and aromatics—in other words a diuretic with filler and flavoring. It was harmless enough unless you happened to have a kidney disease or some other ailment in which salt would be contraindicated, and the taking of it, if you were one of his idle-rich patients, gave you something to think about while the unwonted exercise and restrictions in diet were doing the work.

But then Dr. McCasky fell in with some clever promoters,

James M. Marner and M. H. Sloman, who had been making a good thing out of *Fayro*, despite such setbacks as seizures by the Food and Drug Administration and trouble with the Post Office and the Federal Trade Commission. Marner, president of the *Fayro* concern, professed to have got the *Fayro* formula from Lillian Russell, but being skeptical, so he says, of its merits, added a diet list. Sloman, the advertising representative and former president, has been mixed up with a variety of medicine rackets, slipping in and out with quick thrusts and getting rid of his interests whenever the proposition threatened to become too hot to handle or had been milked dry. His first venture of any note was *Tanlac*, a wine and bitter-herb mixture for "catarrh"—meaning what have you. Sloman was supposed to be handling the advertising, but took a one-fourth interest in the business to pay for his services. His partner was an old-time medicine-show man by the name of Cooper, who mortgaged his wife's house to float the enterprise. When a Cincinnati newspaper notified Sloman that one of the *Tanlac* testimonials had been published two weeks after the writer's death, he became alarmed and sold out to Cooper.

Over a million and a half packages of *Fayro* were sold in 1931—at \$1.25 apiece. On the basis of ingredients they cost about 3 cents and contained enough of the pine-scented mixture of common rock and Epsom salts for three baths. Though the stuff was obviously a fake, it had also to be proved a fraud before it could be taken off the market. Seizure was possible only because the promoters had carelessly slipped up with some therapeutic claim for rheumatism, neuralgia and gout in the labeling.

While the Post Office can issue a fraud order, and the Federal Trade Commission a cease-and-desist order, without going to court, the Food and Drug Administration, before it can make a seizure—the action fairly comparable to these orders—must first have the United States attorney file a libel in the Federal court of the district where the goods are found and later, if the manufacturer chooses to contest the action, fight it out before a court and jury. Though it does not happen often,

it is always possible that the court may refuse to permit the filing of the libel. To establish fraud in the *Fayro* case, it was to the advantage of the Administration to provide evidence for the Post Office and the Commission to act first. Then, when the manufacturer had stipulated to stop using the mails to defraud, and had also been on the receiving end of a cease-and-desist order, there was a much better chance of getting a favorable verdict from the jury. Under the treacherous fraud joker, the Administration can never be too careful in preparing its cases, for it is not authorized to throw away taxpayers' money on hopeless court actions just for the sake of making a gesture.

Since Dr. McCasky joined forces with the *Fayro* outfit, his *Prescription Tablets* seem to have been changed. For while they still contain potassium chloride, and a bit of starch and milk sugar with oil of peppermint to flavor, they now depend for action, not on suggestion, but on *yellow phenolphthalein* at the rate of a grain a day. In other words, you are supposed to dose yourself constantly with a powerful laxative of the poisonous type in order to reduce!

Differ though they may in some respects, there is one thing that all the reducing racketeers have in common, aside from a talent for exploiting the public, and that is a cordial dislike of having the facts about their products made known. They always complain bitterly whenever such information is given out. But would the manufacturer have the Food and Drug Administration ignore a letter like this:

"I have been told that Marmola contains the head of a tapeworm.

"Would you be kind enough to analyze Marmola. If there is a charge for this please let me know at your earliest."

This tapeworm story, by the way, seems to be one of those imperishable bits of American folklore that turn up every so often in different parts of the country. Usually it is told about *Marmola*, for this thyroid preparation is the most widely advertised reducing agent put out in tablet form. Another reason why *Marmola* is singled out for this dubious honor may be

that thyroid, by making the consumer "live" faster than normally, has a depleting effect on the system. According to one popular version, the presence of the tapeworm is discovered when the tablets become lively after lying on the window sill in the sun; in another, they hop around at any time like Mexican jumping beans. There is no scientific evidence to show that the tapeworm ever cavorts in this fashion. Though it is a pity to scotch the legend, the sad truth is that while the story has been circulating for years no Federal agency has ever been able to find any product, whether *Marmola* or another, that contained any part of a tapeworm. Of course, if *Marmola* carried an honest and straightforward label, it would not lay itself open to such canards.

Much as they dislike to tell you the truth about what their products contain and how they really act to reduce weight—that is to say, the whole truth, for some of them do list the scientific names of their ingredients on the package—the manufacturers do not hesitate to say, in superior fashion, what their products are not. Isabella Laboratories, for instance, advertises that

"Formula 281 is a scientifically safe reducing remedy that has *no laxative* effect and can be used with complete confidence."

This nostrum, as it happens, is anything but "safe"; for though it may not be a laxative, its active ingredient is deadly, tissue-consuming dinitrophenol, which even the *Drug and Cosmetic Industry* concedes to be too dangerous to use in a patent medicine.

A more ingenious type of fake comprises the foods sold as fat-reducers. In the case of *Stardom's Hollywood Diet*, you are assured that

"The possibilities of your having an exciting type of Hollywood figure is now so real as to be actually breath-taking, and to gain it you won't have to go hungry, engage in violent exercises, use drugs or resort to laxatives; all of these methods are taboo."

Although to achieve this sylphlike allure you must dispense with a couple of meals a day, "you won't have to go hungry" for the reason that you substitute for each of them a teaspoonful of soya-bean flour flavored with cocoa!

Somewhat the same idea underlies *Syl-Vette*, a chocolate malted milk with sugar and cornstarch, a very nourishing drink. If you take a cup of it for breakfast and another for lunch, as the advertising recommends, "no other food is needed to prevent the pains of hunger." But of course to the extent to which *Syl-Vette* counteracts starvation it also counteracts any reduction in weight. The man behind *Syl-Vette*, by the way, is E. I. Runner, the Wheeling, W. Va., patent-medicine king.

It is perfectly true that when you ingest an insufficient quantity of food your weight goes down, for the body burns up its surplus fat, and even its muscle tissue if necessary, to supply its energy needs. A starvation regimen, however, does not justify the sale of any food as a reducing agent. Such misleading statements in the labeling of a food product constitute misbranding under the Pure Food Law, and the Food and Drug Administration seized several consignments of both *Syl-Vette* and *Stardom's Hollywood Diet*. The *Syl-Vette* seizures were not contested and the stuff has been released under bond for relabeling. A prosecution is now pending against the manufacturer of *Stardom's Hollywood Diet*. Whatever the outcome, the racket can still go on since the false and misleading claims can be made in the advertising, which is what stimulates the victims of the fraud to buy the stuff in the first place.

Welch's Grape Juice is advertised as a fat-reducer on the theory that your health won't suffer when you follow a strict reducing diet if you but take care to get "your minerals." Needless to say, you do this by drinking *Welch's Grape Juice*. Analysis shows, however, that these salts are present in too small quantities to be of value. The pulp of Concord grapes, for instance, contains, according to USDA Circular 205, *The Iron Content of Vegetables and Fruits*, only 0.00074 per cent. of iron. From a product containing this relative amount of iron it would be impossible to get a therapeutic dose. On the other

hand, anyone attempting to consume a sufficient quantity of grape juice to get enough iron and other necessary elements would have to ingest enough carbohydrate in the form of grape sugar to produce fat. For whatever the advertisements may say, the 14.4 per cent. of carbohydrate, which according to Dr. J. S. McLester's *Nutrition and Diet in Health and Disease* is present in grapes in the form of glucose, is readily absorbed by the system and when taken by some individuals would be converted into fat.

The manufacturer of *Welch's Grape Juice* is too canny to make any such fanciful claims in his labeling as he does over the radio, for his product would surely be seized, as were *Syl-Vette* and *Stardom's Hollywood Diet*. The food provisions of the Food and Drugs Act are much more effective than those pertaining to drugs, especially since it is not necessary in the case of a food product for the Government to prove fraud. However, if a food presumes to make health claims on its label, it thereby becomes a "drug" as well and is subject to double-barreled attention from the law. Were *Fleischmann's Yeast*, for instance, to make the same outrageous claims in its labeling that it does in collateral advertising it would be snapped up at once. But here again the manufacturer knows better than to invite trouble and so confines his antics to magazine, newspaper and radio advertising.

Generally speaking, yeast is a good source of vitamins B and G. However, the amount of these vitamins that any special brand of yeast contains depends on the media in which it is grown, as well as other factors. Dried yeast is richer in these vitamins than fresh yeast since it contains a much smaller percentage of moisture. *Fleischmann's Compressed Yeast* contains approximately 70 per cent. moisture. It has some slight laxative action with some individuals, but that seems to be the most that can be said for it. The manufacturer, however, does not scruple to offer it for indigestion, stomach troubles, headaches, constipation, bad breath, skin troubles and various "other kindred ills."

Commenting on the Fleischmann copy in his book, *Facts and*

Feishes in Advertising, E. T. Gundlach, who is an advertising man himself, makes this pertinent criticism:

"Admitting, as will probably not be denied, that Fleischmann's is at least the peer of any yeast on the market, and *assuming* that it will do everything as claimed, the vital trouble with this copy lies in the words 'and kindred ills.' What ills? And what do the symptoms portend? Note that the copy describes not an occasional attack, but frequent, perhaps chronic indigestion. That which the laity diagnose as 'stomach trouble' may be truly intestinal fatigue, or it may be appendicitis, or stones in the gall bladder, or one of several other serious, serious ailments. Would not a competent and honest family physician, in any doubtful case of frequent indigestion, suggest an examination by a good surgeon? But Fleischmann's merely says 'don't put it off' and 'keep it up.'"

The new *Fleischmann's X R Yeast* is said to consist of a different strain of yeast and to contain vitamin A in addition to B, D and G, which were in the old product. But vitamin experts—that is, experts in the laboratory rather than the advertising agency—tell me there is not yet enough scientific evidence for us to know whether we need to add A and D to an ordinary diet or not.

The laxative racket and the reducing racket are usually injurious only to the individuals foolish enough to be victimized by them. Other equally profitable rackets threaten society. For the perpetuation of venereal diseases, with their train of chronic invalidism, insanity and sterility, with their blight on unborn generations, the nostrums alleged to cure syphilis, gonorrhea and gleet are in no small measure responsible. Not one of them has curative value. Some one or more of their ingredients may be useful when properly administered by a physician in connection with other treatment and under observation; it does not follow that they are indicated for self-medication where the peril to public health is so great. Nor is the wide sale of some of them, such as the notorious *H. G. C.*, *Pabst's O. K. Specific* or Reese's *Prescription 1000*, any proof of merit, as the manufacturers would have you believe. It simply shows how tragi-

cally the public is fooled. For these preparations, by making the outward manifestations less evident, create an unwarranted and dangerous illusion of recovery when even medical experts are unable to determine with certainty that the disease has been conquered. The germs may lie dormant for years and the individual, confident his troubles are over, continues to carry the disease, a menace to himself and society.

The Food and Drug Administration has seized these vicious products again and again and prosecuted the manufacturers, and the courts have imposed some of the heaviest fines in the history of the Food and Drugs Act. The labels, in consequence, are as free from promises of cure as you could expect considering that these charlatans in their attempts to evade the law persistently come as close as they dare to violating its provisions without actually getting into trouble. They have constantly to be whacked back.

Control of labels alone, no matter how drastic, is no solution for such a problem. The advertising of these nostrums—so often, as in the case of the Reese products, directed particularly to students—is carried on through signs in public places and through other media over which the Food and Drugs Act has no jurisdiction. Public-health interests demand that the scope of the law be extended to cover advertising if for no other reason than to put an end to this sinister traffic.

Just about on a par with these nostrums are the so-called "rejuvenators," lost-manhood and female-weakness cures, and the hundreds of contraceptives. Some of them are medicinal preparations; some just gadgets. None of them is any good; at least if they do have any effect it is more likely to be injurious than not. One of the rejuvenators, which has recently been denied the use of the mails, is the "goat-gland" suppository exploited by Claude E. Wheeler, M. D., of San Francisco and Los Angeles. Wheeler claimed in his advertising to have "access to the largest herd of wild goats on the American continent," but it was brought out in the investigation that where he actually captured his goats was in the Chicago stockyards; they must have been frantic. And the magic "gland" material was found on

analysis to be nothing more remarkable than ordinary muscle tissue!

Typical of the appliances in this racket is an electrically heated hard rubber "applicator" called *Thermalaid*, which has been widely advertised as a treatment for prostate gland disorders. The Federal Trade Commission recently issued a complaint against the Electro Thermal Company of Steubenville, Ohio, promoters of this device, charging that *Thermalaid* is not a remedy for these diseases and that the advertising greatly exaggerates any benefit to be derived from its use. Should a cease-and-desist order be issued against this concern, *Thermalaid* could still be sold notwithstanding, for the Commission has no authority to take fraudulent wares off the market. And before it can issue the order it must show that *Thermalaid* competes unfairly with reputable products.

It would be interesting to know how much money is thrown away every year on this sort of junk. The cheaper magazines, mail-order catalogues, fraternal and religious publications, and the less particular newspapers are filled with advertisements for all sorts of contraptions, many of which are such palpable fakes that you wonder how anyone could ever be taken in by them—whistles for developing weak lungs; nose straighteners; fake sun lamps; ear trumpets; bust developers; trusses and other pseudo-surgical trappings; eye exercisers; goitre necklaces; stretching machines for increasing the height; "rubber goods"; arch supports; electrical and so-called "radio-active" or "magnetic" devices for every conceivable purpose; cures for tuberculosis, rectal cancer, superfluous fat, Bright's disease, influenza, colds, pneumonia, bowlegs, asthma, baldness, hemorrhoids, sexual impotence—something, in short, to correct every disfigurement, disease and deformity known to mankind. Many appliances, of course, are of value when properly used. These as a rule are honestly advertised. But the frauds—whether harmful or merely of no account—call for statutory control. While the present Food and Drugs Act does not apply to devices, any revision approved by the Department of Agriculture would bring them within the jurisdiction of the statute.

Sometimes these gadgets are merely incidental to the treatment, as in the case of the *Vapo-Cresolene* lamp, where the important feature is the liquid to be vaporized. *Vapo-Cresolene* has been on the market since 1879—that is, the name has been; the product itself has been materially changed. The liquid is essentially cresylic acid, but of late years the phenol content has been cut down from 30 per cent. to less than 5 in order to avoid a "Poison" label under the Caustic Poison Act. *Vapo-Cresolene* was originally sold as a cure for diphtheria and as such was exhibited in the "Chamber of Horrors" which the Department of Agriculture assembled in 1912 for the hearings on the Sherley Amendment. More recently, claims for whooping cough, spasmodic croup and other serious diseases of the respiratory tract have been made on the label. It is significant that when the Food and Drug Administration seized several shipments carrying these claims the manufacturer let them go by default—a tacit admission that he knew he could not uphold his claims in court. The result of those seizures, as so often happens, was merely to drive the false and fraudulent claims off the label—into the advertising.

The best antiseptics, and *Vapo-Cresolene* has some antiseptic power, are never of more than limited value in treating disease. The most an antiseptic can do is destroy the germs with which it comes in contact or prevent their growth. That some succeed in doing this in a test tube is no proof that they will be equally effective when brought into contact with the secretions of the human body. These secretions have some protective power themselves, but it may be destroyed by antiseptics. Even though a mouth wash or a gargle, let us say, should decimate the bacteria with which it comes in contact during the few seconds it is held in the mouth or throat, it cannot reach all of the germs that are present. Were it strong enough to do so, it would first destroy the tissues of the body.

Most mouth washes and douche powders are modifications of the products described in the *National Formulary* as "antiseptic solution" or "antiseptic powder." But the solution is anti-

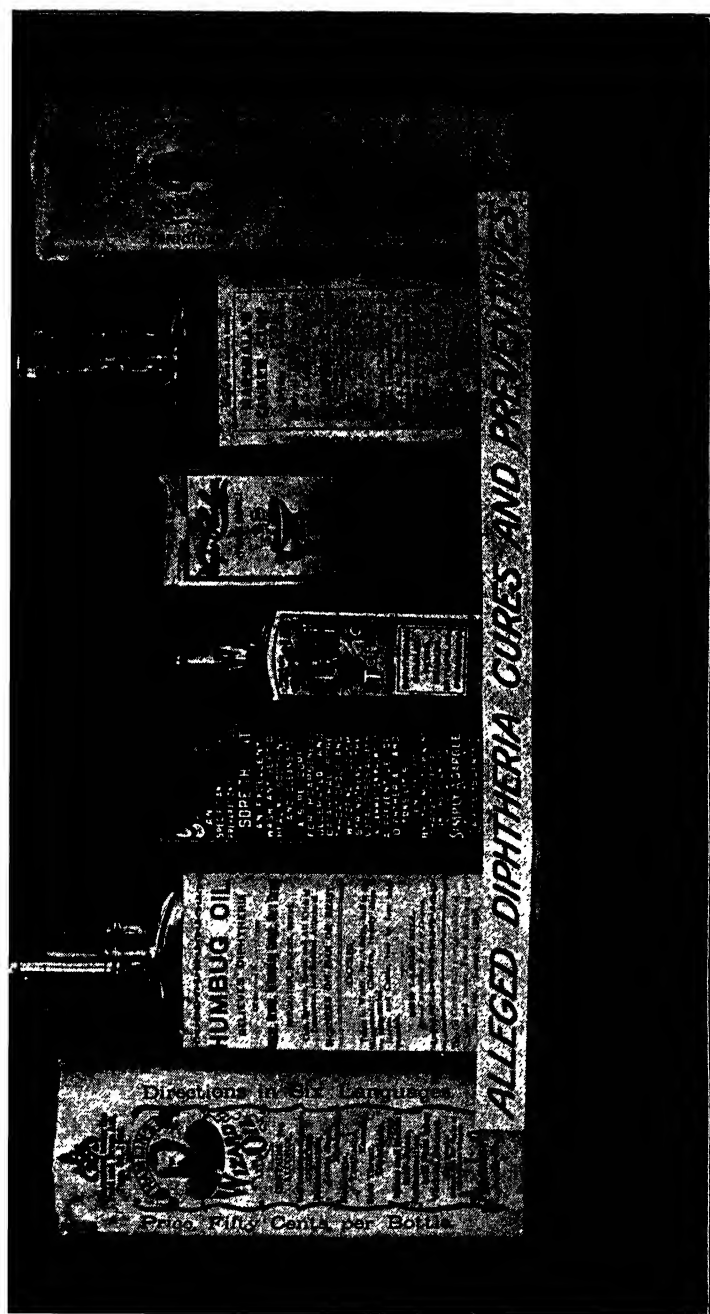
septic only when used full strength, and the powder only when it is used as a dry dressing.

In a drive against antiseptics about five years ago, it was found that most of the products sold as such were either not antiseptic at all, or were recommended in too weak solutions to have any effect on bacteria. Two of the so-called antiseptics that were picked up at that time contained living bacteria.

The principles laid down by the Food and Drug Administration in attempting to control these products is that mouth washes, gargles and douches, which are used in contact with the body for only a few seconds, may be considered antiseptic only if they kill bacteria in the dilution recommended and in the length of time they are in contact. Salves, ointments, dressings, etc., which are used in prolonged contact, may properly be called antiseptic if they merely prevent growth of bacteria. Since the Administration has no control over the claims in the advertising, your best guide is the label. If you find there the same claims that are made in the advertising, you may be reasonably sure they have some justification. If you do not find them in the labeling, you will be warranted in regarding them with suspicion.

While the Food and Drug Administration has no control over advertising, the publishers and broadcasters could—if they wanted to—clean up the abuses by refusing to tolerate objectionable copy. The *Christian Science Monitor* and the St. Louis *Post-Dispatch*, to name the outstanding examples among newspapers, exercise a strict censorship over their advertising columns—a fact that may have had something to do with their fearlessness in supporting the Department's food and drug bill.

Medical authorities the world over agree that no known drugs will cure or prevent colds, influenza or their sinister shadow, pneumonia. But if you had been the manufacturer of something that a flu victim could swallow or sniff or rub on during that last big epidemic, in 1929, the chances are that you would have received a letter like this from the Manager of National Advertising of the *Evening Courier* and *Morning Post* of Camden, New Jersey:



This is an exhibit from the "Chamber of Horrors" prepared by the Department of Agriculture for the hearings on the Sherley Amendment in 1912. Prominent among the display of diphtheria cures was *Vapo-Cresoline*, which is exploited today—though not in the labeling!—as a remedy for whooping cough.

Camden, N. J.
January 5th, 1929

John Smith, Inc.
80 Varick Street
New York City, N. Y.

GENTLEMEN:

"'Flu' is the word upon practically every lip in South Jersey these days. Since your product is one which can be used in connection with this disease, we are enclosing some clippings from the Courier-Post to give you a definite idea of what conditions are in our circulating territory and the extent to which competitors are going in an advertising way to take advantage of the opportunity to make sales.

"Plenty of business can be done in South Jersey while the epidemic continues—and plenty more in a regular way afterward. You may or may not have used the Courier-Post in the past. That is immaterial. The important thing is that they now represent the very best means offered to advertise to South Jerseyites. Our circulation of over 70,000 daily gets your message into 85% of the homes in this community.

"At rates quoted on the attached card you can neither ask nor wish for more. Rush copy to us at once to cover the 'Flu' epidemic and keep at it after the 'Flu' is gone. You'll never be sorry.

"For quick action to take advantage of every possible minutes of this situation, get in touch with our national representative, Story, Brooks & Finley, Chicago, New York and Philadelphia. They will rush special instructions to us with the least possible delay.

"The most beautiful feature of newspaper advertising is that you can completely re-construct your schedules almost overnight. We extend you every facility to get in on this epidemic condition and we'll let you know immediately the attack abates so that you can revert to your regular run of copy.

"The sooner you follow this suggestion, the more business you'll do in South Jersey.

"Very truly yours,
F. T. WILLHITE
Mgr. National Adv.
COURIER-POST"

The clippings are worth looking over. First, there are some news items from the editorial columns of the two papers designed to alarm readers about the spread of the disease and stir them to look for the preventives and cures—which cry for attention in the advertising columns! The clippings are pasted on a single sheet bearing this typewritten caption:

DREADED FLU STILL TAKING ITS TOLL OF VICTIMS IN
SOUTH JERSEY

“Below we show some news stories appearing in the *Courier-Post* throwing light upon the progress of the ‘Flu’ Epidemic. Please note that it is receding in the West and South but spreading in the East. Down here in South Jersey, where the Country is low, swampy and close to the ocean, our lungs are subjected to unusual strain. The damp air and quick changes in temperature bring frequent colds upon us, in fact thousands are unable to rid themselves of colds throughout the winter. These conditions make us ‘easy marks’ for such a disease as ‘Flu.’”

Your competitors, who have lost no time in “getting in on this epidemic condition,” include *Nujol-Mistol* (with copy running every day during the epidemic); *Bel-Caps* (three times a week); *Father John’s Medicine*; *Trentonic*; *Scott’s Emulsion*; *Musterole*; *Bayer’s Aspirin*; *Vicks VapoRub* (also every day); *Ayer’s Cherry Pectoral* and *Lifebuoy Soap*, to say nothing of the local “Y” with its Sun Bath. As the Manager of National Advertising types at the top of the proof:

WHO'D HAVE THOUGHT IT?

“How many laymen would have thought that Lifebuoy Soap could be used as a ‘Flu’ preventative? Few, if any. This ad appeared for the second time Jan. 2nd. Lifebuoy has never been advertised during this season, but it’s makers are grabbing this wonderful chance to introduce a new use for it. As a result Lifebuoy Soap will make its appearance in thousands of South Jersey bathrooms where it never before had access.”

Nowhere in this instructive correspondence is there any suggestion that you submit scientific evidence to substantiate the claims you make for your product as a treatment for this serious disease; but there are four syndicated articles on the subject of influenza epidemics by Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association* and of *Hygeia, the Health Magazine*, which the advertisers are adroit enough to turn to their own advantage. And typed on the *Cherry Pectoral* proof you will find this bit of candor:

"Incidentally, the thought behind these advertisements is not entirely philanthropic. By striking hard at the psychological moment, these manufacturers are cashing in on South Jersey's misfortune—sales are doubling, yes tripling. It's just a case where everybody gains, everybody is benefited. South Jerseyites must have 'Flu' preventatives—NOW!"

But with all the various advertised promises of relief from influenza, the epidemic persisted to an alarming degree. Had you failed to "cash in on South Jersey's misfortune" by the middle of the month, you might have received still other letters—for instance this one, with another news item about the seriousness of the epidemic:

Camden, N. J.
January 14th, 1929

John Smith, Inc.
80 Varick Street
New York City, N. Y.

MORE ABOUT "FLU" EPIDEMIC

"GENTLEMEN:

"We have not heard from you in connection with our recent letters sent, as is this one, special delivery, to make you acquainted with 'flu' conditions in South Jersey.

"Since our last letter, the following advertisers have started driving on 'flu':

Zonite
 Glyco-Thymoline
 Beecham's Pills
 Bronchuline Emulsion
 Foley's Honey & Tar

"Every day we are running an article similar to the attached because we feel the situation serious enough to warrant devoting this space to it. You know white space means money to us just as it does to you and we can't afford to waste it.

"The evidence submitted you is conclusive. Conditions are ripe for a tremendous sales volume. A 'flu' epidemic does not last forever and we again sincerely urge you to get your orders to us at once.

"Very truly yours,

F. W. WILLHITE
 Mgr. National Adv.
 COURIER-POST"

Should you have continued to neglect your opportunities, the Manager of National Advertising might have informed you that

"Just yesterday our local Health Director, Dr. A. L. Stone, published a statement of deaths the last week in which he stated that 33 deaths were caused by 'flu' and pneumonia. You will note from material we sent you with our letter of January 5th and subsequent information in those of January 9th and 14th that more than 25 advertisers are concentrating on 'flu' in the Courier-Post."

So many manufacturers of gargles, mouth washes, nose sprays, cod-liver oil, aspirin, ointments, inhalants, laxatives and other worthless "preventives" and "cures" for influenza were "driving on 'flu'"—not only in New Jersey, but all over the country—that Mr. W. G. Campbell, then Director of Regulatory Work for the Department of Agriculture, issued a warning to the public:

"It is the intention of the Food, Drug and Insecticide Administration to take immediate action under the food and drugs

act against all preparations represented by label or by circular accompanying the package as preventives or treatments of influenza, la grippe, pneumonia, and related diseases.

"There is widespread and probably a fully justified apprehension about influenza and some manufacturers have not hesitated to take advantage of this situation by advertising their preparations in every available quarter as preventives or cures for the disease. Unfortunately, the food and drugs act does not reach false advertising statements appearing in the press, or in any advertising medium not included with the package of the preparation itself. The food and drug enforcing authorities are therefore powerless to check such misleading advertising, serious as the consequences may be in the case of those who are led to depend on such ineffective products and neglect the hygienic precautions recommended by public health authorities such as isolation, rest, sleep, diet and proper ventilation."

During the summer of 1934, we heard a good deal about the wonderful reforms in advertising that were about to be consummated—particularly in the advertising of drug products, where it was generally conceded reform was most needed. The trade associations held meetings, issued statements, appointed committees; magazine publishers discussed the appointment of a "czar" to rule on copy; Better Business Bureaus and advertising groups planned to consult; and individual advertisers expressed concern.

When the Proprietary Association, which represents about 80 per cent. of the two-billion-dollar drug industry, announced that it had appointed an advertising committee to censor copy, the move was hailed by *Printer's Ink* and other trade journals as the dawn of a new era. Edward H. Gardner, one-time professor of marketing and advertising at the University of Wisconsin but more recently of Polk's Consumer Census, was appointed executive secretary of the new clean-up brigade, which was to be a sub-committee of the association's requirements committee. An "Outline of Ethical Principles" was drawn up, and the new executive secretary announced sententiously that manufacturers were already changing their formulas to conform with

the claims in their advertising—a rather more revealing statement, perhaps, than Professor Gardner intended it to be. But there was no doubt about it—the committee was going to clean up advertising! Once it had set to work, there would be no need for Government control over advertising, no need for a new Food and Drugs Act; the industry would set its house in order.

But let us slip into the annual convention of this “patent-medicine pow-wow group,” as Dr. Wiley called the Proprietary Association, and hear its members discussing the new departure among themselves: the reporter from the *Drug and Cosmetic Industry* will take us in on his pass. Once inside, you will forgive me, I hope, if I nudge you with some italics. Mr. Frank (*Cascarets*) Blair, president of the association, has been explaining the plan:

“Throughout the session every member of the Association was asked to express his opinion of the plan. Practically every one who spoke was heartily in favor of the idea, and it was generally agreed that the plan represented a very long step forward on the part of the members of the Association. Only one member voiced the possibility that he might object to the plan. This member stated that the Food and Drug Administration had forced him to take the disease name, whooping cough off his label, but he still uses this disease name in his advertising. He told Mr. Blair that if the advertising committee set up under the plan should tell him to stop using whooping cough in his advertising he would refuse to do so and would resign from the Association. In answer, Mr. Blair asked him if the Requirements Committee of the Association had ever asked him to remove whooping cough from his label. The member answered, ‘No.’ *Whereupon, Mr. Blair stated that the new committee would be just as reasonable on censoring advertising copy as the Requirements Committee has been on censoring label statements.*”

CHAPTER SEVEN

Let the Housewife Beware!

SWINDLING the housewife was a practice the Pure Food Law was intended to stop. Four of the statute's six provisions relating to the adulteration of food products and all those having to do with the misbranding of food were predicated on her right to get what she pays for. That she does not always receive the full measure of protection promised her is due to the failure of the law to provide the necessary legal standards by which spurious products may be adjudged in court, to require informative labels, and to authorize control over advertising.

Following closely the language of the general food law enacted in New York State in 1881, the Food and Drugs Act of 1906 declares a food adulterated: (1) if it is mixed or packed with a substance which reduces its strength or quality; (2) if it is cheapened by the substitution of less valuable or wholesome materials; (3) if a valuable component has been abstracted; (4) if it has been doctored to conceal damage or inferiority; (5) if it contains an added poison or other deleterious ingredient which may render it dangerous to health; (6) if it is made of filthy, putrid or decomposed materials.

With the right analytical methods, it is usually possible to demonstrate the presence in foods of deleterious or disgusting ingredients. But to charge that pepper is adulterated because it is mixed with shells, that maple syrup is adulterated because glucose has been substituted for the sap of the maple tree, that chocolate is adulterated because its fat had been abstracted, that oranges are adulterated because they have been artificially colored to conceal their unfitness for food, is to imply in each

case a standard of purity, or identity, for the genuine article by which the debased or counterfeit product may be judged.

For what is pepper? And who decides what constitutes maple syrup? The manufacturer of a commercial brand? The Vermont farmwife who boils down a syrup from sap she has collected from her own trees? The Department of Agriculture? Or the courts and juries? And how determine at what point chocolate loses its identity as its fat is removed during manufacture—or when an orange becomes ripe enough to eat?

To settle just such questions as these, Congress, in the Agricultural Appropriation Act for 1903, set aside a sum of money

“to enable the Secretary of Agriculture, in collaboration with the Association of Official Agricultural Chemists, and such other experts as he may deem necessary, to establish standards of purity for food products and to determine what are regarded as adulterations therein, for the guidance of the officials of the various States and of the courts of justice. . . .”

Accordingly, Secretary Wilson appointed the Committee on Food Standards of the association to undertake this work. The members of the committee were all nationally known experts. Dr. Wiley was chairman. As he described their procedure and their efforts to give every manufacturer a just and full hearing, the proposed standard in each case was announced, and special care was taken to see that it reached the attention of every manufacturer interested in making the product in question, and of State officials and other experts, so that they might make criticisms and suggestions. Then, at a public hearing, all of these people would come together and discuss the subject. After all this new data had been carefully considered, a revised standard would be published. If there was still opposition to it, it was revised again before the Secretary was advised to promulgate it officially. Thus the manufacturer was given every opportunity to be heard.

Authority to continue this work was renewed each year through a special clause in the Agricultural Appropriation Act. By the time the Food and Drugs Act was passed, standards

had been promulgated in this fashion for some two hundred items, including butter, cheese and other milk products, meats, flours, syrups, condiments and flavorings, preserves, edible oils, and various beverages. The completed schedules were published by the Office of the Secretary on June 26, 1906, as *Circular No. 19, Standards of Purity for Food Products*.

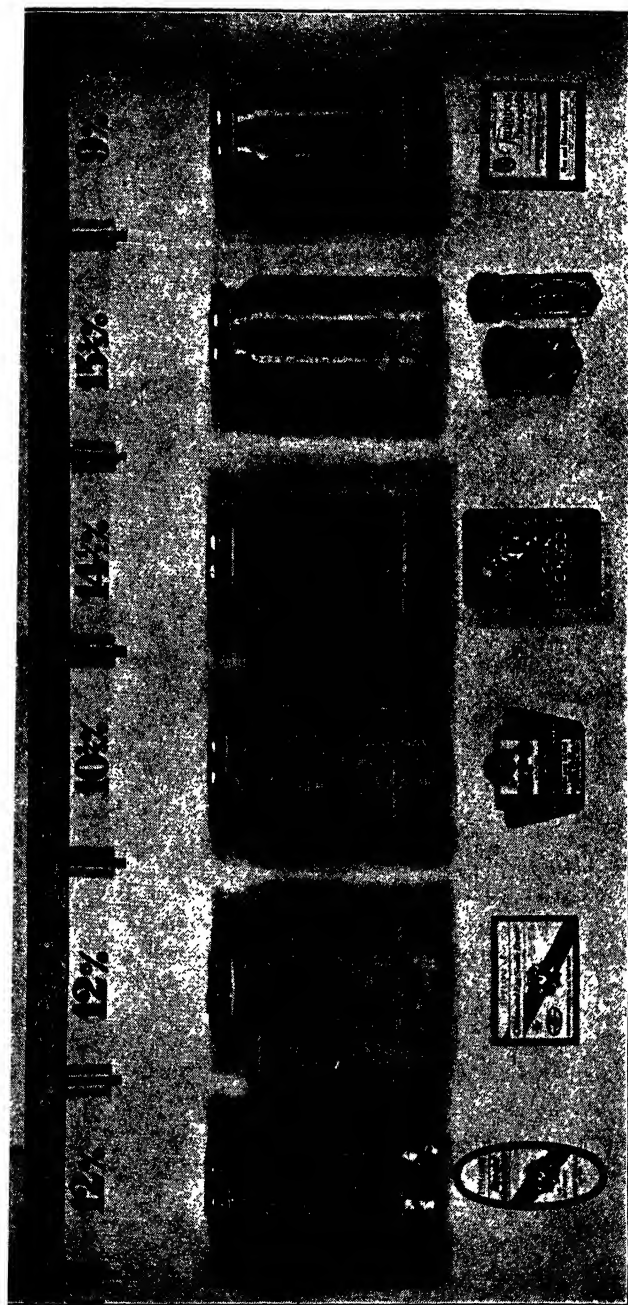
A similar clause authorizing the Secretary to fix standards was incorporated in the Hepburn Pure Food Bill of 1906, but it met with violent opposition, especially from the National Wholesale Liquor Dealers' Association of America and the National Food Manufacturers' Association. Most wholesale liquor dealers were also rectifiers, and they were emphatically not in favor of any law which would require them to label their synthetic hooch for what it was or, conversely, their product to comply with the standard for whisky.

As for the food lobby, Attorney Thomas E. Lannen, speaking in behalf of the Rodenberg Bill, a substitute measure he had written himself, said frankly:

"I can see right now that no food law will be effective until we have food standards by which to interpret that law. But for the reason that the United States Food Standards Commission has been establishing standards for a number of years past that are not acceptable to food manufacturers of the United States in many respects, and that the food manufacturers complain that they have not had a proper representation on this commission, and that it has been compelled to go before several food-standards commissions without having a vote, and that they have not had a proper consideration extended to them and to their arguments—that they do not want those standards foisted upon them."

Though his syntax is a little irregular, the gentleman's meaning is entirely clear: His clients did not propose to submit to any standards they had not actually dictated themselves.

The National Food Manufacturers' Association (the Big Shots in the food lobby) had been organized a few months before to



Because there are no legal standards for foods, the composition of different brands varies widely. The housewife who asks for "chicken and noodles" or "chicken and rice" has no way of knowing which of the six products displayed here offers the most for her money. (Reproduction from a Government exhibit.)

“—secure a proper national food law that will protect the people of the United States against fraudulent, unwholesome and adulterated food; and at the same time recognize and conserve the legitimate constitutional rights of the food manufacturers of the United States.”

The association boasted some three hundred members, representing twenty-two different industries. Those to whom Executive Secretary Lannen pointed with particular pride were various jam and jelly makers, eight or ten preservative makers, “the largest wholesale grocery house in the world,” and the California Fruit Cannery Association. This last was not a trade association, though it was described as such, but a company, which was later reorganized as the California Packing Corporation—in other words, *Del Monte*. Other powerful canning interests were likewise represented on the Board of Directors, as was also the glucose industry. The pure-food bill sponsored by this lobby would have turned over enforcement of the new law to the Department of Commerce and Labor, as it was then. There the food tricksters hoped they would be safe from that “chemist-politician,” Dr. Wiley, who, so they charged, was trying to make himself “dictator” of the food and drug industries. More recently, the food and drug lobbies have been trying to persuade Congress to vest control of advertising solely in the Federal Trade Commission, where for some reason they seem to feel they would fare less hardily than at the hands of Dr. Wiley’s successor, Mr. Walter G. Campbell, the “lawyer-politician,” who, according to them, wants to make himself a “czar.”

Still another stratagem which the food lobby employed in their efforts to prevent legal standards was to advocate fixing them by legislative enactment. As one of their spokesmen put it:

“Take every one of the food products all the way through and name them, and then we will know what is required and we would not be at the mercy of the capers or bad judgment of any one man or set of men.”

This proposal was so manifestly impracticable that they knew they took no risk whatever in suggesting it. For one thing, it would have been a stupendous task and no Congress would have attempted it. For another, such standards would be too inflexible to be satisfactory to anyone. Progress in science and in cultural methods, as well as changes in the character of the foods produced, would all necessitate changes as time went on in the standards themselves—changes which could be effected only by Congressional action.

While the standards clause was included in the bill reported out of the House committee, it was struck out in conference. Both Senator Hepburn and Senator McCumber, sponsors of the pure-food legislation in the upper house, believed that the definitions of adulterations took care of the matter and that determination of the actual standards should be left to the courts and juries. But the measure made no such provision, and its sponsors did not foresee that the courts might therefore refuse to accept the responsibility. Nor did they appreciate the confusion which would arise with the possibility of different standards in each judicial district or even in the same district as juries disagreed in different cases, and the resultant difficulties of enforcement.

Dr. Wiley yielded on this provision solely because he was convinced the bill could not pass with it in, and because he believed he could continue to fix standards under the authority of the annual Agricultural Appropriation Acts. However, no sooner was the Food and Drugs Act passed than the clause in the appropriation bill then pending—which was, of course, legislation—was eliminated on a point of order in the House. A motion to reinsert it failed in the Senate, and thus authority for the Secretary to establish legal standards was lost.

There remained, however, *Circular No. 19, Standards of Purity for Food Products*, which contained all the standards that had been drawn up under the authority of the Appropriation Acts of previous years. Not long after the food law got into action, the Bureau of Chemistry brought a prosecution against the St. Louis Coffee and Spice Mills for shipping a prod-

uct called *Nectar Choice Flavor of Vanilla*, charging that it was an imitation and substitute since it contained no extract of vanilla as defined by *Circular No. 19* and commercial usage. Vanilla extract, according to the standard, was a flavoring extract prepared from the vanilla bean, and in the marts of trade "vanilla extract" and "vanilla flavor" were one and the same. The court, however, was not convinced that the terms were synonymous; and so far as *Circular No. 19* was concerned, since it was issued before the passage of the law, it had no legal standing. He directed a verdict of not guilty. Six months later, in a case involving a so-called lemon extract that differed from the standard, the same judge let a similar question go to the jury—which brought in a verdict of guilty!

These verdicts settled the legality of food standards only in these two cases. The issue would have to be fought out over and over again in every case that came to trial. The trade was by no means ready to accept the recommendations of Dr. Wiley's committee, and in another lemon-extract case, tried before another judge, the manufacturer contended that since the standards were not actually incorporated in the statute, a departure from them did not constitute a violation of the law. But this court held that it made no difference whether they were part of the Food and Drugs Act or not, for the Secretary had had the right to promulgate them when *Circular No. 19* was published.

And then the Bureau of Chemistry haled into court one Rincini, an Arizona ice-cream manufacturer, whose product contained only 7.09 per cent. milk fat as compared with the 14 per cent. prescribed by the standard. Evidence introduced at the trial showed, on the one hand, that local merchants of standing accepted 14 per cent. milk fat as the proper amount; on the other, that a reputable Chicago firm had fixed on 12 per cent. as the figure below which they would sell their own product as "frozen milk." Under the circumstances, the court did not consider itself warranted in determining the exact amount: it did not know what the right figure was. Anyhow—

"It should not be left, it seems to me, for the decision of the court, but should be determined by Congress or by authorization of the Secretary so that the trade may know—so that any man manufacturing it will not be at the mercy of what his brother merchants in a town fix upon as the right proportions."

While *Circular No. 19* continued to carry the ice-cream standard for a number of years, no one paid much attention to it—except such manufacturers as had quixotic notions about putting out a good product. The States, which ordinarily make no effort to bring their own regulations into line with the requirements of the Federal Food and Drugs Act, failed to adopt it, and it was eventually dropped. Today all the States, with the exception of New Mexico, have laws regulating the manufacture and sale of this product, but the standards vary enormously. You may get ice cream containing as little as 4 per cent. milk fat and as much as 56 per cent. air. A certain amount of air—usually about 50 per cent.—is permissible. But it can be overdone, and you may have noticed sometimes that your dessert deflates instead of melting as you devote yourself to conversation. Certainly it would be to the advantage of consumers if ice cream could be nationally standardized at 12 or 14 per cent. milk fat, or even 10 per cent., with a definite weight requirement per gallon. If the Federal Government were empowered to set such a standard, and did so—even though there is very little ice cream in interstate commerce—there is no question but that the States in time would adopt it.

So demoralizing was the effect of the ice-cream decision, virtually proclaiming to the world that a Federal food standard was a mere figure of speech, that Secretary David F. Houston, serving under President Wilson, called attention to the situation in his first Annual Report, and asked that it be remedied:

"The establishment of legal standards for judging foods would render the food and drugs act more effective, less expensive in its administration, and supply needed legal criteria. Under present conditions it is necessary in the individual prosecution to establish by evidence a standard for each individual

article. This procedure is very expensive, and sometimes its cost is out of proportion to its value. Moreover, it may result in lack of uniformity in different jurisdictions. With legal standards established, the control of foods would be more uniform and measurably less expensive. The lack of such standards is today one of the greatest difficulties in the administration of the food and drugs act. These standards, however, should be in the form of definitions, because numerical standards furnish recipes for sophistication."

Numerical standards are of value, however, when they reflect quality or indicate proper cleaning. With some foods—olive oil, let us say—a simple definition covering the source and physical description of the product suffices. With others, such as butter, which must contain at least 80 per cent. milk fat, a numerical constant must be determined in order to show the quality below which the product is not acceptable. This is particularly true of manufactured foods composed of two or more ingredients of different values, as when we say that real jam is made cup for cup with fruit and sugar. It is also true of natural products that display extreme abnormalities, as in the case of cantaloup, which may look mature, but still not be ripe enough for consumption; or of spices, which, because of some abnormal condition of growth, are too low in the characteristic flavoring constituent to be desirable for ordinary use.

The standard for black pepper, following the original outline laid down long before the law was passed, illustrates all the virtues of numerical limits and also the very shortcomings to which the Secretary had reference. Defining black pepper as the dried, immature berry of Lampong pepper, the standard goes on to stipulate at least a certain percentage of non-volatile ether extract as a rough measure of the pungent principle for which the spice is prized; a minimum amount of starch, to safeguard against the abstraction of any of the kernel to make white pepper; and a maximum amount of ash, to insure freedom from sand and other impurities. As any dirt is likely to be on the shell, the ash also serves indirectly as an indication of shell material. But there is naturally a wide variation in peppers

with respect to the amount of comparatively tasteless fiber that may be present. By using a relatively smaller amount of high-grade pepper, it is possible to add a generous amount of shells and still keep within the numerical limits of the standard.

Such sharp-shooting at the standard calls for extraordinary vigilance and resourcefulness on the part of food inspectors and analysts, but Oden R. Sudler and the late Albert F. Seeker were equal to the demands on them. Inspector Sudler, operating from the Baltimore station, observed that McCormick & Company of that city were importing large quantities of pepper shells. There may be legitimate uses for this article, but the inspector did not know what they were and McCormick & Company was not disposed to tell them. Now, this firm, which had been in business for many years, manufactured spices, flavoring extracts and drug specialties, and putting two and two together, Dr. Sudler got "adulterated pepper" without much difficulty. But proving this simple sum was not quite so easy. Sample after sample of McCormick's "Pure Ground Black Pepper" was analyzed, but never did the ash and fiber run over the standard. Whatever manipulation was going on was so skillful, so carefully controlled, that chemical analysis alone would not detect the fraud.

And then Mr. Seeker got busy. Chief chemist of the New York station, he was one of the outstanding food analysts of his day. A little job like this was child's play for him. Right away he had an idea. And while he was working it out in his laboratory, Inspector Sudler was keeping a sharp eye on all shipments in and out of McCormick's. . . .

Suddenly, on May 24, 1916, the United States attorney for the southern district of New York, acting on a report of the Secretary of Agriculture, filed a libel for the seizure and condemnation of six barrels of ground pepper shipped by McCormick & Company of Baltimore into the State of New York. Adulteration of the article was charged for the reason that added pepper shells had been mixed and packed with it so as to reduce and lower and injuriously affect its quality and strength, and had been substituted in part for it. Misbranding was charged

for the reason that the statement "Pure Ground Black Pepper" in the labeling was false and misleading in that the article was an imitation of, and was offered for sale as, black pepper when it was not black pepper, and for the further reason that it was labeled and branded so as to deceive and mislead the purchaser. Other shipments were seized on the same charges in Wilmington and Savannah.

When the New York seizure was brought to trial the following December, the Government contended that the McCormick people were stretching pure Lampong pepper with foreign shells through some method of scientific control which enabled them to standardize their product apparently at the level prescribed by *Circular No. 19*. Mr. Seeker, testifying for the Government, estimated from the amount of quinine in the samples he had analyzed that from 10 to 28 per cent. of such shells had been added.

Quinine? What was the man talking about? There is no quinine in pepper!

The foreman in charge of pepper-grinding at the McCormick plant hastened to the stand to swear that even though the company did handle drugs, no quinine could possibly have spilled over into the spice department. And none could have got into the barrels from any previous use in storing cinchona bark, from which the drug is made—those nice, clean barrels so carefully lined with heavy paper!

But Mr. Seeker was equally positive as to what he had found. He readily conceded that quinine is not found in pepper as a usual thing. But the tests he had employed do not identify anything else, and there could be no mistake. Besides, he knew where the quinine had come from: Inspectors Sudler and Lowe had sprayed it through several hundred bags of shells on the dock when they arrived in this country—and then Dr. Sudler had followed 199 of those bags to the McCormick factory. It was the witness himself, however, who had prepared the solution, using alcohol, which would be dissipated quickly, instead of water in order to avoid mold. An ounce of the solution to a sack of shells, he had ascertained by experiment, was enough to

mark the shells plainly, but not enough to affect anyone who might consume the pepper, while the bitterness of the drug would be disguised by the pepper's acrid flavor.

Mr. Charles Wesley Dunn, learned counsel for the defense, was the very picture of outraged dignity. Mr. Dunn has since won fame as the code authority for dog food and as the author of various emasculating amendments to and edentate substitutes for the Copeland Food and Drug Bill. But this was the first—and so far as I have been able to find—the only food case he has ever tried under the Federal Pure Food Law, and naturally he wanted to make an impression on the court—there was no jury. But now he could only beg for time and hope somehow to repair the damage to his opportunity.

After the desired recess, Mr. Dunn moved to strike out the testimony about the marker, calling its use an unlawful invasion of private rights. This the court denied on the ground that the Government may take measures to detect crime. Then he urged that because the pepper was shown on chemical analysis to come within the limits of the standard advised by the Department of Agriculture the Government should not have been permitted to show by other means that it was adulterated. Someone may have reminded him that consumers too have rights, for he later abandoned this singular contention and in his brief argued only the weight of the evidence.

But Judge Manton decided that the evidence tipped the scales in favor of the Government, and ordered the pepper to be sold by the United States marshal as "ground black pepper containing from 10 per cent to 28 per cent of added pepper shells," all costs to be borne by the manufacturer. A subsequent criminal prosecution based on these seizures added up more costs for McCormick & Company, and a fine of \$750. Proceeds from the sale went into the coffers of the United States Treasury.

This pepper, let it be noted, was entirely fit for consumption. There was nothing in it that was in any way unwholesome. But the shells had far less flavor than pure black pepper, and the product was decidedly inferior to what the housewife had a right to expect under the original label. When it was properly

branded, however—as at the marshal's sale—and she knew exactly what she was getting, there would no longer be any question of fraud. She would not be cheated, for if she accepted the product, it would be for the reason that she was satisfied with its quality, and not that she had been misled into thinking it better than it was.

As a matter of fact, all four types of economic adulterations forbidden by the Food and Drugs Act can usually be corrected by proper labeling. For these prohibitions are really counterparts of the misbranding sections of the law, and the Government so construes them in bringing charges against offenders. Thus, instead of alleging infraction of a standard, the Government may contend that the product in question is not recognized by the trade or by consumers as the thing it purports to be—that something else has been substituted for the genuine article—and therefore it is misbranded. Yet even here a standard must be assumed if there is to be a common understanding of the limit above which a product is desirable, below which it is not acceptable.

To provide such advisory criteria, Secretary Houston in 1914 revived the Food Standards Committee. He did so under authority of Section 5 of the Food and Drugs Act itself, which definitely recognizes the assistance State officials can give in the enforcement of the Federal law. Accordingly, he appointed three members from the Association of State Dairy, Food and Drug Officials, three from the Association of Official Agricultural Chemists, and three from the Department of Agriculture. This committee, which has been presided over for several years by Mr. Walter S. Frisbie, Chief of the Division of State Cooperation in the Food and Drug Administration, follows much the same procedure as that described by Dr. Wiley. But the standards it formulates have none of the force and effect of law, so that every case must stand on its own facts. In other words, before the Government can prove that the product on trial represents a departure from the standard, it must first establish the standard's validity. This is accomplished by introducing a procession of witnesses who will testify as to the com-

position expected by consumers and recognized by the reputable majority of the trade.

But think what a costly, time-consuming performance this is as compared with the swift trial of a butter case. In the latter, after the usual preliminary routine of proving interstate commerce, one or two chemists testify that the shipment in question contains less than 80 per cent. by weight of butter fat and that is all there is to it. For there is a legal standard for butter enacted in 1923 at the behest of the dairy industry itself to save the trade from cutting its own throat. Dr. Wiley always contended that Congress defrauded the public in not adopting the figure recommended by his Food Standards Committee—82½ per cent.; but of all the countries which export butter to the United States, and they are the ones on which statistics are available, only Hungary and Soviet Russia have a higher requirement. To meet the legal specification, it makes no difference how rich cream is used, but of course the richer it is, the smaller the quantity that will be needed. Usually the fat content of the cream runs from 33 per cent. upward, as compared with the 30 per cent. of standard whipping cream, for the creameries do not find it profitable to pay transportation charges on buttermilk. Armour's *Cloverbloom*, said by the manufacturer to be made from "cream richer than whipping cream," has frequently been seized for being deficient in fat.

Legislative correction of other abuses due to the lack of legal standards would likewise redound to the common advantage of ethical producers and the public. For instance, the law exempts compounds, imitations and blends from the adulteration and misbranding sections, provided they are labeled as such and contain no added deleterious ingredient. But it fails to enjoin the whole truth on their labels, and it ignores their advertising entirely. One sort of chiseling thus made possible was described by the Honorable Stanley C. Wilson, Governor of Vermont, in his retiring message to the General Assembly:

"Vermont is famous for her maple syrup and sugar. Because Vermont maple products are recognized as leading in quality,

certain manufacturers of blend syrups are now putting them on the market under names and in connection with advertising apparently cleverly designed to deceive consumers into the belief that they are really the product of the maple forests of Vermont. Some of these blend syrups contain but little maple product and even that is understood to be imported."

Though what little the manufacturer says on his label may be entirely truthful, before the housewife ever sees the package she has more than likely been influenced by some such advertisement as this, which Senator Austin put in the record of the Senate hearings on the Copeland Bill:

"I can taste that flavor of real Vermont maple sugar."

From the world's maple-sugar "headquarters" comes this delicious blend of cane and maple sugars.

Do you remember long ago when your Aunt Ida sent you that delicious maple sugar from Vermont?

Well, up here, in the heart of the famous maple country—Vermont Maid Syrup is blended for your table.

Pure maple sugar—from a choice selection of Vermont's maple crop—is skillfully blended with pure cane sugar to bring out that rich maple tang.

Tomorrow morning, give your family a surprise. Make a batch of delicate brown pancakes or tender waffles.

Just imagine them with a dab of butter floating in a golden pool of rich Vermont Maid Syrup. Umm! It makes you hungry just to read about it.

Remember the name—Vermont Maid Syrup. It's the finest syrup you can buy. Penick & Ford, Ltd., Inc., Burlington, Vt.

VERMONT MAID SYRUP

Vermont Maid Syrup, as it happens, consists of approximately 75 per cent. cane sugar, and only 25 per cent. maple. The same composition is true also of *Towle's Log Cabin Syrup*—at least in New York State, which requires a label describing the contents; elsewhere it contains approximately 5 per cent. less maple.

Yet another practice to which the Vermont maple sugar makers objected through their senatorial spokesmen was the

sale of decolorized, low-grade syrup as a standard product. Under the present Food and Drugs Act nothing can be done about it, but under an adequate new measure a standard could be promulgated for decolorized maple syrup as a product of distinct identity, while the label would be required to carry the generic name used in that definition. And the advertising would have to be as strictly truthful as the label!

Just as maple syrup has always been a favorite medium through which to swindle the housewife, so too have flavoring extracts. In fact, there is probably no other class of food products in the purchase of which she can be more easily misled. Standard extracts—if one may use the term when there are no standards—are alcoholic preparations containing a definite percentage of the appropriate essential oils or other basic materials, and possibly glycerine. Imitations, which have to be labeled as such, resemble the true flavors, but their flavoring principles are usually synthetic materials made up into various forms with alcohol, sugar syrup, vegetable oils, or water solutions. Compounds are simply mixtures of imitations and genuine extracts.

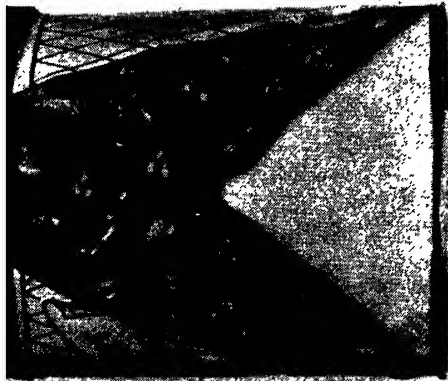
For some time the industry has complained of being demoralized by a veritable flood of cheap, worthless imitations. Colored water, to which are added synthetic flavor and just enough glycerine to give it "body" and hold the flavor in solution, is widely sold at ten or fifteen cents for a big bottle. To correct this evil, manufacturers of the genuine extracts and better imitations have been demanding a legal standard for imitations. They have not favored the Copeland Bill, however, since many of them also make drug products, which they don't yearn to have regulated. And John S. Hall, general counsel for their trade association, turned up at the 1934 hearings on that measure with a recommendation that the Government be required to prove intent to defraud in the matter of deceptive or slack-filled containers—the same sort of joker that has prevented effective control of patent medicines all these years.

For some of this group have played all sorts of tunes on their packages. A large bottle of vanilla, for instance, may contain only half as much flavoring as a bottle half the size. You can

see the difference by holding them sideways against the light, or by comparing their respective contents as stated on the label. This declaration of quantity, by the way, is one of the few positive requirements of the Wiley law. Even here the chiseler will try to fool you if he can by stating the amount in drams instead of fluid ounces. (A dram is only an eighth of an ounce.)

The old Wiley law does not prohibit deceptive containers nor slack-filled packages, and this defect has permitted an enormous amount of petty chiseling. Oatmeal, macaroni, spices and rice are particularly subject to this practice. A so-called "slack-fill" bill was introduced by Representative Haugen in 1919, but neither this measure nor any of its numerous successors has ever passed both the House and the Senate. These bills have always been opposed by the makers of glass bottles, who have been apprehensive lest such legislation eliminate the heavy-shouldered bottle they deemed essential to withstand breakage. But such bottles need not in addition be made with thick bottoms, deep panels and elongated necks. Nor does the giant dimple in the bottom of some beverage bottles seem altogether necessary—though a spokesman for the carbonated-beverage people has defended the use of trick bottles as "increasing the individuality of the product." Equally frank was the formula peddler who advised his customer to use *Bateman's Oil* bottles since "they make a large looking package, though in fact they hold very little."

In a recent survey by State authorities in Alabama, six samples of black pepper showed a fill of container from 82 per cent. to as low as 43 per cent. of what the housewife might reasonably expect. Coffee and chicory compounds ranged from 67 to 80 per cent., the average being about 70, and one sample of tea was hardly more than half full. An attractive basket of fancy sealed pecans, thanks to a false bottom, was only 77 per cent. filled. Three samples of salt showed fills of 72, 75 and 80 per cent. respectively. The manufacturers may contend that space must be allowed in the carton to permit easy removal of the contents, but 28 per cent. of head space would seem more than ample for this purpose.



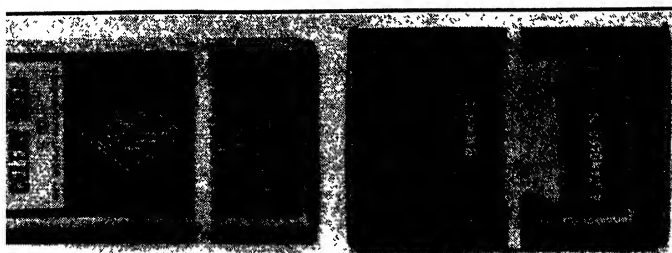
False bottom in "Erbas Nut" package



Side view of
vanilla bottle



AIR space



False bottom in cheese package



Some of the ways the housewife is imposed upon because the Federal Food and Drugs Act does not prohibit deceptive packages or slack-filling. (Reproduction from a Government exhibit.)

Some candy manufacturers, too, have good reason to oppose—as they always do—any legislation against deceptive containers. A candy box one of the inspectors told me about was big enough to hold a pound; but it had a false bottom occupying a quarter of the space, and such other structures that there was room actually for only six ounces. Candy boxes holding no more than fifteen ounces are common.

And Mr. W. R. M. Wharton, chief of the Eastern District, has a story about a cheese manufacturer who, on finding competition keen, reduced the quantity of cheese in his package from the conventional eight ounces to six by putting in a false bottom. But a competitor went him one better by putting in two layers of false bottom, thus reducing the quantity to four ounces. And then came another competitor who chiseled away yet another ounce by adding a third false bottom!

An exhibit in the "Chamber of Horrors" that caused a great deal of comment was one showing a package of plain flour-and-water noodles wrapped in yellow cellophane to make them look like egg noodles. Really good noodles always contain eggs. When the housewife makes her own, she breaks a few eggs in a bowl, adds enough flour for business purposes, rolls out the mixture, cuts it in strips and dries them. The best commercial noodles also contain a generous amount of eggs. One brand in New York City that sells—and sells!—for twice the usual price contains 14 per cent. egg solids.

The Department's advisory standard, predicated on household and trade practices, calls for not less than $5\frac{1}{2}$ per cent. egg solids. But not long ago the chisellers thought up a new way of getting around this recommendation. Nothing so crude as yellow cellophane this time! These "egg" noodles all but defied expert analysis. They were made of soya-bean flour, a substance wholesome in itself, but here colored with turmeric (a harmless yellow dye) and so used to perpetrate a fraud. The dye was easy to detect, but the soya flour by its own lecithin-phosphoric-acid content confused the determination of eggs, and if the Government's analysts had not been among the best in the world, the deception might not have been found out. Quan-

tities of these adulterated noodles were seized; but the swindle would have been immeasurably easier to control if the standard had had any legal significance.

The addition of only 2 per cent. of colored soya-bean flour to plain macaroni so changes the color that the finished product has the characteristic tinge of semolina macaroni, the standard product made of high-grade durum wheat. Soya flour costs from \$5.50 to \$6 a barrel, while semolina costs around \$9, a difference of thirty cents' illegal profit on each twenty-pound box. But the manufacturers protest that the only purpose of the coloring is to hide the muddiness of the macaroni in which soya flour is used, and that soya is necessary because semolina flour hasn't been as good as usual lately. With the price of eggs soaring higher and higher, officials have not been surprised, despite such protestations, to read in the trade papers that

"It is understood that certain firms selling soya bean flour have taken orders from macaroni manufacturers based on the statement that it could not be detected even by experts."

One manufacturer alone—the Kentucky Macaroni Company, Incorporated, of Louisville—made and distributed almost three million pounds of alimentary paste products containing soya-bean flour. The Food and Drug Administration, since the fraud was discovered, has seized hundreds of dollars' worth of interstate shipments put out by this firm or its subsidiaries.

Still another new trick is the use of carotene to dye soya-bean flour, making it even harder to detect. Carotene is a natural coloring matter found in many foods, such as egg yolks, wheat, yellow corn, carrots and all leafy vegetables. It is used in soya ostensibly to fortify the vitamin content, as it is a source of Vitamin A. But when food officials see such flour advertised for use in cakes, noodles and other foods where eggs are expected, they become suspicious and set to work on methods for its detection. Their skepticism is justified, to be sure, by letters like this from a manufacturer to his agent:

"Answering yours of the 1st relative to our No. 7 flour.

"According to the interpretation which our Attorneys place

on the laws, it is specifically prohibited by the Federal Government to use artificial coloring matter of any kind in macaroni or noodles when the macaroni or noodles are sold in interstate trade and when they are called on the label either macaroni or noodles.

"In other words to use an artificial color in macaroni it would be necessary to call the macaroni by some other trade name and not have the word macaroni appear on the label.

"A good illustration of getting around this law is in the mayonnaise salad dressing produced by Kraft wherein the label does not call the salad dressing mayonnaise but calls it 'Kraft's Miracle Whip.'

"In other food products, such as bread, cake, cheese, etc., the Federal Government considers the products as being adulterated and misbranded if it contains 'any product which makes the finished article appear better than it should be by its normal ingredients.' In other words you can color cake pink or green and the public knows that there is artificial coloring and you do not have to label the cake but if you make a sponge cake and put yellow coloring matter into the cake so as to make the cake look richer than it ordinarily would, then you are violating the Pure Food Law.

"We want to help you avoid getting in trouble with the Government and we can assure you that we want to avoid getting in trouble ourselves. For your information the coloring matter annatto and turmeric can be very easily detected in almost any laboratory. In fact if you take some No. 7 Flour, stir it up in alcohol and drain off the alcohol you will notice that the yellow coloring matter dissolves out.

"If we could get a source of supply of Carotene and have the macaroni people label their containers with 'Vitamin A Concentrate Added' we believe the macaroni people would not be violating any law providing of course their egg content was in accordance with other regulations."

The loophole through which *Kraft's Miracle Whip* and similar factitious products escape regulation under the Food and Drugs Act is the famous joker exempting any food from the prohibitions of the law, with the single exception of the one against added deleterious ingredients, *provided it is sold under*

its own "distinctive name." Even though the ingredients of such articles may be filthy, moldy or decomposed, the Government is powerless to stop its sale since the offensive materials cannot be shown to be injurious to health. Just what the purpose of Congress was in including such a proviso in the statute nobody knows, but there it is, hampering the public's protection.

Kraft's Miracle Whip is not a mayonnaise, however, but a cooked dressing with a starch base. As such, it conforms to the standard set for this type of product under the now defunct NRA Code. The housewife usually makes her boiled dressing with butter, but the Code standard, based on commercial practice, calls for not less than 35 per cent. vegetable oil. The Mayonnaise and Salad Dressing Institute (a trade association) would like to have products containing less than this amount of oil labeled as imitations, with their composition stated in percentages. Manufacturers of the low-oil products retort that the institute is dominated by salad-dressing makers who are also refiners of vegetable oil, and it is true that Best Foods, Incorporated (*Hellman's Blue Ribbon Mayonnaise*), is a subsidiary of the American Linseed Company, one of the largest manufacturers of refined cocoanut oil in the country. Be that as it may, *Aunt Sally's Dressing*, put out by Blue Seal Food Products, Incorporated, of Chicago, contains 24 per cent. sugar, 55 per cent. water, 10 per cent. starch, and only 6 per cent. oil and eggs. The institute fears that this substitution of sugar and water for oil and eggs will influence still other manufacturers to cheapen their products in order to meet competition, and urges that the practice be stopped.

But the distinctive name proviso that makes *Kraft's Miracle Whip* immune from "Government interference" also spreads its sheltering wings over many of the product's ruggedly individualistic competitors. Since *Tem-Taste*, which contains no added deleterious ingredient, is not labeled as "salad dressing" but as a product *sui generis*—that is, *Tem-Taste*—the Pure Food Law does not apply to it. If the Food and Drug Administration has its way, however, not only *Tem-Taste* but *Kraft's Miracle Whip* and all other fabricated food products will be compelled

by a new law to declare their ingredients—except flavorings and spices, perhaps—in the order of their preponderance by weight, so that the purchaser will have enough information on the label to make an intelligent choice.

Conspicuous among the number and variety of food products enjoying the license conferred by distinctive trade names are many of the so-called “process” cheeses. Unless this term is qualified, it usually means emulsified American Cheddar, though two or more kinds are sometimes blended. This type of product has been a godsend to the industry, for it provides a means of using up second-quality or otherwise unsaleable cheeses. The paraffin on the outside is scraped off, any mold is cut away (though if there are cracks, crevices or pockets where mold may lurk, unfit portions undoubtedly go in), and hard pieces, like the rind and edges, are ground up. The cheese is then heated with water, salt and some harmless emulsifying agent, such as sodium phosphate, sodium citrate or Rochelle salts, and the molten mass is poured into the tin foil cups which form part of the retail package. The processed product has less flavor than raw cheese, but it often keeps better, spreads more easily, and can be cut in thin slices without crumbling.

The popular cheese spreads are somewhat like process cheese except that while the mixture is in a fluid state whole milk or whey is added, thus giving the product more moisture and less fat. *Pabst-ett*, for example, contains 45 per cent. moisture and 41 per cent. fat (on a dry basis) as compared with the 50 per cent. fat and 39 per cent. moisture of ordinary Cheddar cheese. And *Pabst-ett* is expensive! The 6½-ounce package sells for 20 cents—that is, at the rate of 48 cents a pound, while the best Cheddar is not more than 40. In short, when you buy *Pabst-ett*—and the same thing is true of *Velveeta* or Borden's *Château*—you are in part paying cream prices for milk or whey. *Château*, however, does contain added butter—in addition to Cheddar cheese, skim milk, sodium phosphate, sodium citrate, citric acid and salt—and is therefore a filled cheese. Like *Velveeta*, it is artificially colored.

The method of describing the fat content should be noted.

Despite *Good Housekeeping's* seal of approval on *Velveeta*, more than two thousand dollars' worth of this Kraft-Phenix product was seized not long ago, largely because of the deceptive way the fat content was declared on the label. The Government objected that a description of *Velveeta* as a "cheese food" containing 43 per cent. fat would make the consumer think he was getting high-grade genuine cheese, when actually only 25.31 per cent. of the mixture was fat. To be sure, if all the moisture were withdrawn from *Velveeta*, the proportion of fat in the remaining solids would be 43 per cent., but you could not tell that from the package.

Kraft's Old English Cheddar also superficially resembles process cheese, but it is made without chemical emulsifying agents. The same effect is produced by forcing the molten cheese through tiny holes in a plate. Homogenized cheese, as this type is called, always has a smooth texture. This particular brand is also pasteurized—that is, heated at a high temperature long enough to reduce the bacteria content to a minimum. But "that lingering flavor . . . rich, mellow, with a bit of a tingle on the tongue . . . rare, sharp, old Cheddar—unmistakably" is probably due less to the prolonged aging usually responsible for the tang of genuine old Cheddar than to red pepper, such as was found in some samples that were analyzed recently.

The Department of Agriculture has promulgated standards for most kinds of cheese, but they are purely administrative and the manufacturer follows them or not as he sees fit. Wisconsin, however, has legal standards for cheese, and the State requirement of 45 per cent. fat on a dry basis for Schweizer has caused no end of controversy. The characteristic holes formed by the action of gas-producing bacteria are the big selling point of Swiss cheese and the jobbers demand more and more of them. Manufacturers, on the other hand, protest that if they try to enlarge the holes or increase their number when as much as 45 per cent. fat is used, the cheese gets glassy and cracks. But the jobbers are insistent. Their customers, especially thrifty boarding-house landladies, restaurateurs, sandwich makers and

the like, all want big holes and lots of them; they get more miles to the gallon.

This business of selling holes for cheese is matched by some of the tricks played with other food products—"ready prepared desserts," let us say. The three items essential to a successful pudding, if the cookbook recipes are anything to go by, are milk, eggs and sugar. Other ingredients are incidental. When you buy a preparation labeled "Pudding Powder," you are entitled to get one made of the recognized ingredients for the kind of pudding named on the package—that is, powdered whole milk, dried eggs, sugar, flavoring, a little cornstarch, ground tapioca or arrowroot, and a pinch of salt. What you are likely to get, however, is colored cornstarch—to which you add the expensive ingredients.

Pie fillers, ice creams, meringues, custards and other "quick, easy desserts" in powdered form also permit you to furnish the principal materials. Ice-cream powders often contain gelatin, while prepared meringues are made of the mucilages of tragacanth or karaya, substances used in the manufacture of shaving cream. Competition has forced down the prices of these dainties to a certain extent, but you still pay handsomely for sugar and cornstarch. Under a new law meeting the approval of the Food and Drug Administration, products of this kind would have to conform to official standards for chocolate pudding, lemon-pie filler and the like, unless they were sold under fanciful trade names as products for which no standards had been set, in which case their labels would have to tell what was in them.

The same sort of protection is needed against so-called "fruit" drinks, the most common cheats of all. As F. P. A., famed columnist of the New York *Herald Tribune*, once remarked (with no small injustice to himself), those heaps of oranges on soft-drink stands are about as significant as his fountain pen would be lying on a volume of Keats' poems. Imitation fruitades make up for their deficiency in fruit juice by the addition of citric or tartaric acid and artificial color. Soda water ("pop" to you) derives its fruit-like character from fruit acid, true or imitation fruit flavor, artificial color and sugar syrup. Its pulpy

appearance is often due to ground citrus fruit or some oil emulsion. The Food and Drug Administration has been trying for years to persuade the manufacturers of "fruit" drinks to use at least enough genuine fruit juice to impart the distinctive fruit character, but with no legal authority to back up such recommendations, it has been uphill work. When *Smack*, an imitation grape concentrate containing scarcely 5 per cent. of grape juice, was seized some years ago, the case was thrown out of court because the product's distinctive trade name (that joker again!) put it beyond reach of the law.

The distinctive-name joker also helps to immunize so notorious a product as *Ovaltine*, that fabulous "Swiss" drink. Essentially a chocolate malted milk to which has been added a bit of dried egg, *Ovaltine* possesses the merits and limitations of such a mixture—no more, no less. Yet it is exploited like a patent medicine, as having all sorts of miraculous properties. No doubt a glass at bedtime is inducive to sleep; but so is a glass of warm milk or water, and for the same reason. There is no evidence, however, that *Ovaltine* speeds up digestion or that it digests four or five times its weight of other foods, as has been represented. It is also advertised extensively as a weight builder for children, a claim which Dr. Arthur J. Cramp of the American Medical Association has examined in terms of calories. The manufacturer says that *Ovaltine* has an energy value of 1864 calories to the pound. If you use two teaspoonfuls as directed in making one glass, you get approximately 50 calories, the equivalent in energy value of 1 graham cracker. Of course, if you use milk in making it, the milk adds another 170 calories, so that you get the equivalent of 3½ graham crackers. But at that rate you might as well drink the milk by itself and save the 75 cents you pay for *Ovaltine*.

Knowledge of the composition of products like *Ovaltine* is of more than economic importance, as Dr. Grafton Tyler Brown, distinguished specialist in allergic medicine, brought out at a hearing on the Copeland Bill. In pleading for the declaration of ingredients on proprietary foods, as well as on drugs and cosmetics, Dr. Brown said:

"I had a child in my office today sensitive to eggs, who has asthma whenever she eats eggs. The mother has known for years from her own observation that that is so yet recently and for some time back she has been giving the child Ovaltine as a tonic, not knowing that Ovaltine contains eggs. Had she been able to read on that package that Ovaltine contains eggs, I am sure she would never have given it to the child."

As Dr. Brown reminded his audience, what is one man's meat is another man's poison, and at least 15 per cent. of the population are hypersensitive (allergic) to some one or more substances. Some people cannot eat strawberries without breaking out in a rash, an effect having nothing to do with the acid in the berries, as one might think, but caused by their protein. Allergic children will also break out violently with hives or eczema from eating eggs or even foods containing the merest trace of egg; or they will develop acute attacks of asthma. Others will be affected by yeast, cottonseed, flaxseed, wheat, orris root (which is used as a starch filler in some foods), or tomatoes. This susceptibility, as Dr. Brown explained, means that

"... certain of the tissues of the body which we think of as shock tissues are sensitive to the protein of these particular substances, and every time that protein comes in contact, the reaction is produced in the form of an asthmatic attack or a hives attack."

The allergic individual always has a problem in protecting himself from foods to which he is sensitive, and his difficulty is multiplied by the number of proprietary foods. It is of no particular help to him in buying such foods to know of their ingredients only that they are registered with the Secretary of Agriculture. Yet such filing of ingredients was the solution of the allergy problem which Mr. Charles Wesley Dunn (attorney in the McCormick pepper case) sought to have incorporated in the proposed new law.

The mere suggestion that consumers have a right to know what they eat is always enough to give food lobbyists the jitters.

Invariably they begin to worry about *Lea & Perrins Sauce*—of all products! and the hard time it would have if its competitors could read its composition on the label. As if those competitors had not long since had it analyzed! Food and Drug officials always look bored when the subject of this condiment comes up. And no wonder! *Lea & Perrins Sauce* has been bobbing up like King Charles' head at every food and drug hearing for the last thirty years, and never for any good reason. In 1906, it was Mr. Thomas E. Lannen, attorney for the National Food Manufacturers' Association, who feared it would be put out of business, or at least irreparably damaged, by Dr. Wiley's proposed Pure Food Law. More recently, Mr. Charles Wesley Dunn, attorney for the Associated Grocery Manufacturers of America, has been doing the keening. As it happens, *Lea & Perrins Sauce* is a pretty good product and it is difficult to see why it should call forth these Macedonian wails. Its basic ingredients, which serve as carriers for spices and flavors, are already well known to competitors and food technicians generally. The secret of its condimental distinction lies in its unusual combination of spices and flavors and these, under the Copeland Bill as it passed the Senate, could be designated simply as "spices and flavors" without being listed separately.

That the distinctive-name proviso Mr. Dunn has fought so hard to retain may work injury on the manufacturers of legitimate products was demonstrated a few years ago in the preserve industry. The kind of jam that Mother used to make calls for approximately equal parts of fruit and sugar and these proportions were adopted in the Department's advisory standard and have always been followed in the best trade practice. But with the exploitation of pectin, a natural jellying agent derived commercially from apples and citrus fruit, there appeared on the market a host of imitations containing very little fruit. One of the most widely sold of these jam-like compounds was a product called *Bred Spred*, put out by the Glaser-Crandell Company of Chicago. Bearing the *Good Housekeeping* seal of approval, it was represented to the trade, and by the trade to consumers, as "pure fruit preserves." Though the actual fruit content was

less than half what the consumer had a right to expect, the Government was unable to stop the fraud since the product was sold under its own distinctive name.

The helplessness of the Government to cope with fakes of this kind was thus advertised to racketeers, and a forty-million-dollar industry was in a fair way to be ruined. Similar fraudulent "preserves" sprang up on every hand. Less and less fruit was used, and even that little was ground up to spread the pulp and seed as far as possible. The jobber, who is at all times looking for something cheaper than his competitors carry, would buy these substandard products for considerably less than he would have to pay for the genuine, and then pass them on to his customers at such a high price that the retailer would have to charge almost as much for them as for standard preserves. Helpless to maintain quality under such circumstances, even reputable manufacturers began to chisel, and the housewife lost more and more of her enthusiasm with each jar of factory-made jam she bought. When the trade association thought to correct the abuse through advertising, the agent who made a survey of conditions reported that it would be foolish to spend the money until quality was put back in the industry.

In desperation the association appealed to Congress for a legal standard for preserves which would have the same force and effect of law as that enacted for butter some years before. This might have been granted had not the glucose industry as usual intruded itself with a demand that the use of corn sugar for sucrose (cane or beet sugar) be permitted in compounds of this sort without declaration on the label. This attempt to emasculate the Pure Food Law through special privileges to the corn-sugar interests was no more successful than previous efforts in that direction; but it is an unhappy fact that what the glucose lobby was unable to obtain from Congress by statutory enactment it received from the Secretary of Agriculture, Mr. Arthur Mastic Hyde, by administrative decree. For shortly after the corn-sugar rider had killed the jam-and-jelly-standards bill, Secretary Hyde ruled that while corn-sugar when sold in packages or in bulk must be labeled as such,

"—its use as an ingredient in the packing, preparation or processing of any article of food need not be declared. But nothing in this ruling shall be construed to permit its use to adulterate or imitate a natural product, such as honey."

This ruling, by the way, is always cited by those who believe that the Food and Drug Administration, or perhaps we should say the enforcement of the Food and Drugs Act, should be transferred from the Department of Agriculture to a new "Department of the Consumer" or made an independent regulatory agency for the better protection of the public against such onslaughts by special interests. It should be remarked that Mr. Walter G. Campbell, Chief of the Food and Drug Administration, vigorously opposed the corn-sugar amendments as regularly as they were offered, not because this kind of sugar is not an entirely wholesome product, but because the housewife has a right to get what she thinks she is buying, the fundamental principle on which the Food and Drugs Act is based.

And finally there are the frauds which arise from incomplete knowledge. Such is the overzealous exploitation of the vitamins. All the vitamins have a popular appeal, but our knowledge of them is still chaotic. We do know that these mysterious substances are not fats, proteins, carbohydrates or salts; that they occur in minute quantities in natural foods; that they are essential to normal nutrition; and that they prevent the pathological conditions known as "deficiency diseases." Of them all, vitamin D is the most widely exploited. This vitamin has to do in some way with the deposition of calcium and phosphorus in the growing body; without it calcium will not make bone. Indeed, the vitamin is practically a specific for rickets. It occurs mostly in liver, egg yolk and salmon and to a lesser degree in some other foods, but we get most of our supply by direct exposure to sunlight. Vitamin D can also be produced artificially by irradiating a substance called ergosterol with ultra-violet light. The resultant product dissolved in vegetable oil is known as viosterol.

The potency of vitamin D is determined by feeding it in measured amounts to rats in which rickets have been produced

and comparing the effects with those obtained by feeding a similar group of rats with cod-liver oil of known vitamin content. Advertisements for irradiated foods usually claim that these products are equal in vitamin D to certain amounts of cod-liver oil. The Food and Drug Administration believes that the potency should be expressed in terms of U. S. P. units and by moral suasion often succeeds in having it stated that way in the labeling. Under the right sort of food-and-drugs act the Government would have authority to compel products which do not contain enough of the vitamin to be of value in preventing rickets to say so frankly on the package, and to forbid claims in the advertising which are not borne out by facts.

While there is a definite place for vitamin D in infant nutrition, it remains to be seen whether or not it belongs in the dietary of older children or of adults. At present we have virtually no knowledge with respect to the actual vitamin requirements of these older groups, but there is no evidence that a significant portion of the adult population suffers from any deficiency. Animals fed the vitamin in excess are able to store it up in their tissues, but it is not known whether human beings have the same ability or not. If they have, they can meet their needs very effectively by proper exposure to sunshine and wise selection of natural foods. For all we know, too much vitamin D may be dangerous, though so far any toxic results have been obtained only in experimental therapy on animals, when massive doses were given deliberately in order to observe the effects.

Americans, however, have an idea that if a little is good, a whole lot must be better, and the market has been flooded with products of every conceivable type reputedly fortified with vitamin D—bread, cereals, cheese, biscuits, wafers, ice cream, yeast, canned vegetables, fruit juices, carbonated soft drinks, beer, wine, malt preparations, face creams, chewing gums, peanut butter and soda-fountain syrups, to mention only a few. In order to check the claims for such products and to formulate standards for vitamin potency, the Food and Drug Administration has recently established a new Vitamin Division, which has the good fortune to be under the direction of

Dr. E. M. Nelson, one of the foremost vitamin experts in all the world and a scientist of distinguished attainment. But to get results, Dr. Nelson and his staff, like other Food and Drug officials, will need to be supported by a law giving control over advertising, requiring the whole truth on the label, and authorizing the establishment of legal standards.

CHAPTER EIGHT

Say It With Can-Openers!

THERE is today always news about food and equipment for homes. But unfortunately such news will practically come to an end if some of the new Government theorists ever succeed in legislating into effect, their ideas that housewives should buy only by specifications—"as the Government does"—instead of by brands."

In the same issue of the *Ladies' Home Journal* which carried this gloomy editorial there appeared (at a cost of \$12,500) a full page of "news" about *Del Monte*, bell-wether brand of the California Packing Corporation. This advertisement read, in part:

"Can you
afford to guess,
these days?

—when Del Monte costs you no more
than many unknown brands!

"Get DEL MONTE—and you *know* what you're getting, before you buy!

"But when you take an unknown, untried brand—can you ever really be sure?"

And *Good Housekeeping*, some months later, printed this informative item:

"DEAR LADY—

"You have only yourself to blame—if you don't get this quality—every time!

"You *know* DEL MONTE—one quality and *only* one quality—the *finest in every can!*"

Now, it happened in the winter of 1934-5 that inspectors of the Food and Drug Administration went shopping in Washington, Philadelphia, New York, Chicago, St. Louis and New Orleans. In each of these six cities they visited a dozen grocery stores—four exclusive ones, four middle class, and four somewhat less pretentious. Confining their purchases of vegetables to No. 2 cans and of fruit to No. 2½ cans, they bought a sample of every brand of peaches, tomatoes and cream-style corn offered for sale in each one of the stores. The 505 cans obtained in this way were opened in the Government's Food Control Laboratories and their contents graded according to the standards of quality promulgated by the Bureau of Agricultural Economics. These grades of A, B, C and Substandard correspond to the designations of quality used by the trade and found on some of the labels picked up in this survey—Fancy, Extra Standard or Choice, Standard and Substandard. Certain canned foods that do not meet the U. S. Standard are required to carry special statements on their labels; other indications of quality are given at the whim of the packer or distributor.

The complete results of the survey are tabulated in the Appendix, pp. 349-359. A few samples, such as *Kingan's* peaches, grading A and selling for only 17 cents—probably because of a fly-specked label, may be noted in particular. A can of Substandard peaches bore the required label, "Below U. S. Standard Good Food—Not High Grade," but the legend had been carefully obliterated by a sticker reading "General Gro. Co., St. Louis, Mo.," which had been pasted over it. One sample of tomatoes labeled Fancy and another labeled Extra Standard were found to be Substandard because of low drained weight and may have been exceptional for these brands. *Del Maiz* corn, several samples of which had been collected, could not be included in the final tabulation since it was packed in No. 303 cans, a deceptive size that looks as large as the usual can, but actually holds three ounces less. All samples suspected of violat-

ing the law were reported, of course, to the proper field stations for further attention preliminary to legal action.

Definite indications of grade were found on only 87 cans, and of these less than half described the contents accurately. Of how much value descriptive statements may be in specifying quality may be judged from the two different labels on *Libby* peaches. The Fancy grade had a black label marked "Fancy," and the Choice a white label with no grade designation. On the ends of the cans were the usual smudgy black hieroglyphics of the packer's code by which he and the distributor might identify the contents. The code mark on the Fancy peaches indicated a 55-degree, or very heavy, syrup, and the label read:

"The distinctive rich and heavy syrup is made from pure sugar."

The code mark on the Choice peaches denoted a 40-degree, or lighter, syrup but the white label echoed:

"The syrup is made from pure sugar and is especially rich and heavy."

The housewife is supposed to tell from this that the peaches in the can with the white label are slightly inferior to those in the can with the black label—or is she?

One could spend many a long winter evening in making analytical studies of this survey. But certain facts stand out at a glance. One need not be an expert statistician to see that brands—each one touted as the Super-Perfect Extra-Sublime Best—are not reliable guides to quality, whatever the women's magazines and their advertisers may say. How about price?

Let us look at the range of prices for each grade:

<i>Product</i>	<i>Grade A</i>	<i>Grade B</i>	<i>Grade C</i>	<i>Substandard</i>
Peaches	17¢-35¢	15¢-28¢	14¢-24¢	10¢-15¢
Tomatoes	9¢-19¢	7¢-18¢	7¢-15¢	7¢-13¢
Corn	10¢-23¢	10¢-13¢	9¢-20¢	9¢-10¢

If the housewife pays from 17 cents to 24 cents for peaches, she may, for all she knows, be getting A, B or C quality. The

same thing is true if she pays from 9 cents to 15 cents for tomatoes. If she pays from 10 cents to 20 cents for corn, she may get the best quality—or substandard! In other words, lopping a few pennies off either extreme, she pays exactly the same price for any grade, regardless.

It will be noted that 244 of these cans were put out by the packers under their own labels, while 261 were distributed by wholesale grocers. There is no way for the public to know which, if any, of these 261 cans distributed by wholesalers were actually packed by Stokeley Brothers, the California Packing Corporation, the Richmond-Chase Company or other canners with advertised brands of their own, for the jobber shops around for bargains.

What often happens in actual practice is this: The jobber orders 1,000 cases of corn, let us say, all of the same grade (often making sure that his representative is on hand when it is packed to see that he gets the quality he wants), and then labels them to suit his own purposes. Five hundred of them he may put out under his best label to sell at 25 cents; 250 under his next best label to sell at 16 cents; and 250 under the packer's label to sell at 12½ cents. Or suppose he wants to distribute 75,000 cans of Fancy tomatoes and has his labels printed, only to find that 50,000 cans are all he can get of the top grade. Does he throw away those extra 25,000 Fancy labels? Or does he use them on any quality he can get? The survey tells the answer!

The men who branded the 505 cans in the survey knew exactly what quality of peaches, tomatoes and corn they contained. The canners packed them on the basis of quality grades. The distributors bought them by grades. Banks and lending companies, before they would accept them as collateral for loans, would demand grade certificates.

Only the housewife would have to take them on faith.

If she were buying a laying mash for her hens, however, she could tell from the label whether she was getting good value for her money or not. Mixed feeds for livestock are also sold with guarantees as to what they contain. And fertilizers carry

quality labels. As Dr. Wells Sherman of the Bureau of Agricultural Economics expressed it at the hearings on the Canners' Code:

"It does seem just a little strange that we can do this for our soil, and we can do it for our animals, and we can do it with reference to the seeds which we plant, but we hesitate to undertake it when we come to dealing with the canned goods which must be purchased sight unseen for human consumption."

The McNary-Mapes Amendment to the Food and Drugs Act, which the canners succeeded in getting on the statute books in 1930 as protection for themselves against competition from the lowest edible grade of canned goods, does require a declaration of quality on the labels of substandard products. It authorizes the Secretary of Agriculture to promulgate a *minimum* standard of quality, condition and fill of container for each generic class of canned food except milk and meat products, and requires all brands which fail to meet that standard to say so on the label. The legend on substandard vegetables must read, "Below U. S. Standard Low Quality But Not Illegal"; and on substandard fruits, "Below U. S. Standard Good Food—Not High Grade." As Congress has never appropriated any money for the enforcement of the McNary-Mapes Amendment and the only funds available would have to be withdrawn from work on poisonous-spray residues on fresh fruits and vegetables and from other projects seriously affecting health, it has so far been possible to establish standards for only peas, tomatoes, dry peas, peaches, pears, apricots and cherries.

These Substandard foods are entirely wholesome, nutritious and useful, though they are less attractive for table use than the higher quality products. If they were not fit for food, they could not be sold. The peas and tomatoes are sometimes packed in ordinary-size cans practical for the household, but the fruits are usually put up in big containers holding six or seven pounds. They go to lumber camps, cheap restaurants, bakeries and the like, which do not consider appearance and palatability important.

Even though the McNary-Mapes Amendment was sponsored by the National Cannery Association, its enforcement has met with vigorous opposition from certain independent canners. The original standard and labeling promulgated for peas applied not only to those canned in an immature, succulent state, but to those ripened on the vine. When mature, dry peas, which have to be soaked to make them suitable for canning, were required to be labeled as Substandard, Mr. Ivan Morgan, a packer in Austin, Indiana, who packs this type of product—and also field corn—obtained an injunction to restrain enforcement of the regulation. His argument was that the ruling was unreasonable since it set up the excellence of one generic product, immature peas, as a standard of quality for a wholly different article—namely, dry peas. The court agreed with him, and held too that the labeling requirement was unwarranted since it compelled the packer to brand one wholesome generic product as inferior to another, different product. The injunction was sustained on appeal, and the Department, believing it could employ its limited funds to better advantage, let the case drop instead of carrying it to the Supreme Court, and formulated a standard for “dry peas.”

The original draft of the proposed new Food and Drugs Act, which Senator Copeland introduced in June, 1933, authorized the Secretary of Agriculture to establish standards of quality, as well as identity, for all food products. After giving notice of the proposed standards, he was to hold public hearings in each case and then, and only then, promulgate the standards. And it would be at least ninety days more before the standards would become effective.

Simple and reasonable as that provision was, nevertheless it terrified the canners and wholesale grocers. Just what conversations may have taken place between them and the publishers of “news” about canned foods can only be conjectured. But certainly the national magazines, especially those devoted to helping women manage their homes more efficiently, were strangely reluctant to publish anything in favor of a piece of reform legislation vitally affecting the health and pocketbook of every man,

woman and child in the United States. *Good Housekeeping*, to be sure, in the issue of October, 1933, had an article by Dr. Walter H. Eddy, director of the institute, in which this statement was made:

"Dr. Wiley has passed on, but GOOD HOUSEKEEPING still carries his banner and fights for his ideals. He would wish that we rally to the support of the enforcement officials in Washington who have framed this new bill to give those aims greater support. We are taking this opportunity, then, to get behind the new measure publicly and at the same time to enlist GOOD HOUSEKEEPING'S more than two million readers in its intelligent support."

But in the December number, instead of printing an article by Dr. Tugwell, as the editors had offered to do before the business office apparently cracked down on them, *Good Housekeeping* took "Another Look at the Pure Food Bill," this time through the eyes of Mr. Earnest Elmo Calkins, for many years head of Calkins & Holden, a New York advertising agency. And when Mr. Calkins looked at the bill, all he could see, somehow, was the propaganda disseminated by the patent-medicine lobby, even to the palpable misrepresentation that if the bill became a law you could not take an aspirin tablet or a dose of mineral oil without a doctor's prescription. The fairness of this criticism may be measured by the fact that it was in circulation early in the spring of 1933—before the bill was written or its opponents could possibly know what was in it!

When Senate hearings were held on the Copeland Bill, both the original draft and subsequent revisions, the principal spokesman in opposition to quality standards and grade labeling was not a canner but a publisher, Mr. Charles Coolidge Parlin of the Curtis publications (*Ladies' Home Journal*, *Saturday Evening Post* and *Country Gentleman*.) Mr. Parlin also represented 147 other magazines, with an aggregate circulation of fifty millions. And that, said Mr. Parlin, made him the mouthpiece for consumers—in whose behalf he protested the grading provisions of the bill!

Through its former president, Mr. Frank Gerber, the Na-

tional Canners' Association did ask retention of the McNary-Mapes provisions. But Mr. Gerber (who cans *A-B-C Strained Vegetables* for babies) was curiously averse to extending the principle to include standards of quality above the McNary-Mapes minimum with a view to putting the grades on the label. The alphabetical eruption on his own label, of course, has nothing to do with quality. Originally each of the letters was linked to the word "Vitamin"; but something may have reminded Mr. Gerber that under the Food and Drugs Act such an implication of vitamin content has to be borne out by facts. At any rate the word disappeared, and the child's A-B-C building blocks on his label are now purely ornamental.

The National Canners' Association, through its 650 member firms, is said to pack about 60 per cent. of all canned food except milk. Its scope is nation wide. But its official views on the labeling question are not endorsed by all the canners in the country. The Tri-State Packers' Association, the membership of which includes canners in New Jersey, Delaware and Maryland, unanimously went on record at this time as favoring more informative labels, and particularly A-B-C-grade designations of quality. This resolution was put in the record of the hearings on the food bill by Field Secretary F. M. Shook. Pointing out that many members of the National Canners' Association were already using these grades on their labels, Mr. Shook went on to say:

"In fact, it is customary in quoting canned fruits and vegetables to make the quotations by grades. Always quotations are designated at certain prices for Fancy, Choice or Extra Standard, and Standard grade. Insofar as groups of canners report sales, shipments, or stocks of canned foods these reports are invariably by grades. . . . This all indicates that no hardship would be placed upon the canning industry by such regulations or requirements as might be brought about through the proposed bill."

The small canner is well aware that he would benefit as much as consumers from a mandatory system of grade labeling. But

it does him no good to try it by himself unless he packs a consistent A, for he suffers from the competition of low-grade but nationally touted brands. The housewife who has been persuaded she was getting the best—when it was only an expensively advertised C—and decides the best in canned goods is not good enough, does not turn to a B frankly labeled as such, nor an honest C, but to fresh fruits and vegetables. Moreover, the jobber, anxious to push his own brands and unwilling for his customers to get in the habit of buying by grades, frequently refuses to handle graded merchandise. Were grade labeling to be imposed on all alike, it would rescue the small canner from the domination of the jobber. And increased consumer confidence might offset what Mr. Shook has called “the recent terrific decline in the sale of canned goods.”

The big canners and the jobbers and the publishers insisted, however, that the standards section of the food-and-drug bill be limited to the McNary-Mapes principle, and Senator Cope-land, never enamored of the grading idea anyway, revised the measure to provide only a minimum standard of quality. The only advance over the old law was that this minimum standard was authorized for all foods instead of just those packed in hermetically sealed containers and sterilized by heat.

Elated by this inglorious victory, the pig-in-a-poke forces moved on to the NRA front, where a new bugler, Mr. Paul S. Willis, president of the Associated Grocery Manufacturers of America, was trumpeting:

“ . . . the appropriate place for a food law provision is in the Federal Food and Drugs Act. It is the national food law. It is designed to accomplish a comprehensive regulation of interstate commerce in all foods. And if and to the extent this act is inadequate the remedy is to amend it. Consequently our association stands foursquare with the National Canners’ Association in resisting any food law provision in the canners’ code which the canners do not want.”

If such unequivocal support of the canners puzzles you, a glance at the interlocking membership of these trade associa-

tions may illuminate the reason for it. Two or three names will be enough—Gerber Products Division, Fremont Canning Company—California Packing Corporation—Libby, McNeill & Libby. And since the standards clause in the food-and-drug bill provided also for standards of identity, it may not be out of order, while we're looking at the roster, to recognize some other acquaintances—Penick & Ford (*Vermont Maid Syrup*)—Kraft-Phenix Corporation—McCormick & Company of pepper fame—and Mr. Charles Wesley Dunn, attorney for AGMA.

On the other hand, public hearings on the canning code in February, 1933, revealed such formidable advocates of quality standards as the American Home Economics Association, National League of Women Voters, General Federation of Women's Clubs, National Council of Women, American Association of University Women, American Federation of Labor, Consumers' Research and every Government agency that was by way of knowing anything about the subject. Representatives of every one of these groups could speak with authority as to what consumers wanted for themselves under this code—namely, labels on canned foods that would give them definite, concise, accurate information about the quality of the contents; in short—grade labeling.

But the canners and the grocers and the grocery manufacturers, to say nothing of the publishers, still insisted in the face of this testimony that consumers preferred to buy by brands. Grade labeling would destroy the value of brands and the goodwill built up by years of costly advertising. Quality could not be measured in such a way that the grades would stand up in court, and since consumers were not bright enough to understand them anyway and would buy only Grade A, the canners would be ruined.

So there was no standards clause in the final draft of the code.

And then, to their indignant amazement, the canners had imposed on them the requirement that they take steps toward labeling their products to show quality. Responsibility for this proceeding (described by the editor of *Food Industries* as "wholly unscrupulous") has been attributed variously to the

late Mrs. Mary Harriman Rumsey, chairman of the Consumers' Advisory Board, to the Undersecretary of Agriculture, and to Mrs. Roosevelt. But whoever conceived the idea, it was the President who carried it out. For when the canning code was finally approved, May 29, 1934, an Executive Order stipulated that such acceptance was conditional on the industry's appointing a committee to formulate standards of quality and to make recommendations to the NRA within ninety days for the inclusion of standards provisions and labeling requirements in the code.

Still the industry pursued its dilatory tactics. The first report of the Labeling Committee recommended simply that Congress appropriate \$100,000 to complete the grading authorized under the McNary-Mapes Amendment, and that a survey be undertaken to find out what sort of information consumers wanted on the labels. This report was sharply criticized by Mr. C. W. Kitchen, Assistant Chief of the Bureau of Agricultural Economics, Mr. Karl Hauck of the Consumers' Advisory Board, and Dr. W. B. White, Chief of the Food Control Laboratories of the Food and Drug Administration, who were acting as special advisors to Food Division Administrator Riley. Expressing "strong feeling" that the committee's recommendations were too limited in scope to carry out the clear intent of the President's order, these experts urged that the BAE grades, which the canners were already using in their own dealings, be adopted as an initial basis for grading and labeling under the code.

But the Labeling Committee, when its ninety days were up, flatly rejected the quality grading of canned foods and proposed instead "a comprehensive system of descriptive labeling, the proper use of descriptive terms to be assured by physical test."

Bearing in mind that the purpose of declaring the grade on the label is to let the housewife know exactly what quality of food is inside the can, let us look at the "descriptive" terms for cream-style corn on which the lady of the house would have to base her judgment in buying under the canners' plan:

(1) Description of texture as "Not Tender," "Firm, Not Tough," "Medium Tender" or "Very Tender"; (2) Statement of the degree of freedom from dark kernels, cob, husk or silk, as "To a High Degree Free from Dark Kernels, Cob, Husk, or Silk" (a statement of this descriptive element shall not be required for any product meeting this highest requirement, but the use of such descriptive statement shall be optional with the packer), "Practically Free from Dark Kernels, Cob, Husk or Silk"; or "Reasonably Free from Dark Kernels, Cob, Husk or, Silk"; (3) Statement of the consistency of the product as "Very Thick Pack," "Thin Pack," or "Creamy Pack"; (4) Specification of the sugar content or sweetness of the product, as "Very Sweet," "Medium Sweet," "Slightly Sweet" or "No Added Sugar."

By the time the poor woman had compared all the permutations and combinations of these terms that would be possible on the average grocery shelf, she would be "practically certain" to buy fresh vegetables she could *see*. At least she would be "reasonably unlikely" to take a chance on one containing "So Many Dark Kernels," "So Much Cob" or "So Many Feet of Silk."

And it would be a strong-minded canner who could avoid a nervous breakdown in trying to keep his own label straight! Administrator Riley figured out that for just one-size can of cream-style corn, 288 permutations of these terms are possible—144 for white corn and as many more for golden bantam. As there are at least four sizes of cans for cream-style corn, he would need a total of 1152 labels to cover the two varieties and four can sizes of corn alone. If he also packs peas, he would require 864 labels for one size of can. For all five of the sizes in which peas are packed, 4320 labels would be necessary. When you consider that there are some 4500 brands of corn, at least 1000 of peaches, and heaven only knows how many of other products, the multiplicity of labels possible under the canners' plan assumes fantastic aspects.

It has been suggested, however, that the canners are not entirely disingenuous. No less a person than Mr. F. Hall Wright-

son, former president of the Tri-State Packers and a member and committeeman of the National Canners, has said:

"It is very significant to me that those who have previously been the most outstanding opponents of any kind of informative labeling are now the ones who are so strenuously advocating this confusing system."

While Administrator Riley's expert advisors recognized that the proposed labels were, in some respects, an improvement over what we have, they were not convinced that the plan would meet the need of consumers for quality standards and labeling. Indeed, they took sharp issue with the canners on their contentions that grades would be less informative than descriptive statements; that the impossibility of measuring flavor would make grades unreliable; that grades could not be enforced because of the necessity of including flavor; that misbranding would increase because of the temptation for the canner, knowing the grade could not be settled in court, to overstate the quality of his product; that competition would force him to pack to the bottom of the grade; and that favorably situated sections of the country would be forced to the permanently lower-grade level of competing sections, thus debasing the prescribed grades, with consequent damage to the trade, the consumer and the farmer.

Now, it is true that the original BAE grades were not formulated with the idea of having to hold their own in court as adjuncts of a criminal law. They were designed for use in commercial transactions—to settle trade disputes and to determine the collateral value of canned goods pledged to secure loans, and for those purposes they have served admirably. If they are declared on the labels of canned foods in interstate commerce, however, they automatically come within the jurisdiction of the Federal Food and Drugs Act, a criminal statute for which the canners have an altogether wholesome respect. But why should the fact that these particular grades are dependent on the opinion of the grader preclude the possibility of grades based on objectively determinable factors? Both the Food and Drug Ad-

ministration and the Bureau of Agricultural Economics, which have certainly had plenty of experience in these matters, believe that such grades can be worked out in a reasonably short time, given the proper technical set-up. Admittedly, it is not possible to give flavor an objective rating. But what of it? All the factors that build up flavor can be determined with mathematical nicety; hence there is no need to measure it directly, and it can be left to the manufacturer's reputation—something he can advertise about his brand!

The minimum standards promulgated under the McNary-Mapes Amendment are ample evidence of what can be done. They are based, according to the product, on size or number of contents, color, maturity, tenderness or texture, peel, trim, lack of blemishes, quality of syrup or brine, drained weight and fill of container. In formulating them, nothing is left to the imagination. Each factor is subjected to precise mathematical measurements or chemical tests. The regulations, which were drawn up by scientific experts, set forth in each instance what percentage of the contents must be free—not "practically" free—from specified blemishes; how big the biggest piece can be in proportion to the contents of the can; how many square inches of peeling will be permitted to a pound, and so on. Color is tested by a contraption resembling a colorimeter. The tenderness of peas and beans is measured exactly on a "bite machine" worked out by Victor Bonney and Paul Clifford, crack scientists in the Food Control Laboratories, to handle this particular problem, while pears, peaches and apricots are tried out on a penetrometer. There isn't a reason in the world why multiple grades above the minimum standard cannot be objectively determined by the use of these and similar devices. It makes no difference what agency establishes such grades—the Food and Drug Administration, the Bureau of Agricultural Economics, or some new kind of NRA. The only concern of enforcement officials is that they be capable of demonstration before the average jury, for the regulatory bureau, with its tremendous responsibility in protecting the public against dangerous products, has no money to throw away on unwinnable cases. With Federal judges imposing fines

of \$5 and \$10—or throwing the case out of court—because the manufacturer is a “respected” citizen, and United States attorneys balking for the same reason at filing actions, the Administration must present evidence of wrong-doing that will command respectful attention.

For concrete evidence of how a system of Government grades might work in actual practice, Administrator Riley requested the Consumers’ Advisory Board to conduct an investigation in Canada, where a grading and labeling law has been in operation since 1917. Cannerymen, distributors, wholesale and retail grocers, publishers and advertising agencies were interviewed, and some very significant facts were brought out.

The labels of canned foods sold within the Dominion are required, it seems, to carry a true description of the contents and a declaration of quality grade. The grades, known as Fancy, Choice, Standard and Seconds, accompany—in no sense supplant—the brand name. For advertising by brands is the rule, and has not fallen off since these labeling requirements have been enforced.

The fear of United States cannerymen that consumers would buy only the top grade if the quality were revealed on the label has not been borne out in Canada. The demand there for Standard goods (for which the housewife finds so many uses) has been so great that some cannerymen have actually labeled their Choice products as Standard in order to meet it. This is not a good practice, as it leads the consumer to expect too much from the lower grade; but the mere fact that the cannerymen attempt it is sufficient answer to the bogey that grades must result in quality chiseling. On the contrary, Canadian distributors and cannerymen assert that any considerations of saving in production costs through packing close to the bottom of the grade are outweighed by the premium for packing as high a quality as possible.

The compulsion to sell by grades keeps the retailer’s prices in line with those of his competitors in the same district, and prevents such glaring discrepancies between price and quality as were revealed in the Food and Drug Administration’s survey. According to the cannerymen, who made a Canadian survey of their

own in the hope of discrediting the facts brought out by the Consumers' Advisory Board, only 25 per cent. of the women in Canada are familiar with the different grades. But even if this figure is correct (and it's a batting average that would make advertisers on this side of the border throw their hats in the air), even if the housewife does not understand the meaning of the grades on the labels, she does know what price she has been accustomed to pay, and if her grocer were suddenly to start charging her Fancy prices for Standard merchandise, she would immediately know something was wrong.

The Canadian housewife appears to be willing, however, to pay more for an advertised brand. The canner with a genuinely superior product has found it pays to tell her about its peculiar excellence within its grade, the speed with which it is packed to preserve its appearance and flavor, and any other real talking points he may have. The tolerance within each grade is wide enough to make such advertising worthwhile, and it is a fact that the branded products of the largest advertisers in the Dominion—Canadian Canners, Ltd.—command a premium over non-advertised brands.

Opponents of grade labeling in the United States have repeatedly voiced the fear that under such a plan prices would freeze at the lowest level for each grade and become the determining factor in retail sales. Mr. H. W. Phelps, president of the American Can Company, speaking over the Columbia network on the Forum of Liberty program, expressed the idea in concrete terms when he said that if two cans were both labeled Grade A (or Fancy), with one priced at 16 cents and the other at 14 cents, the cheaper would always be sold. This is a flat contradiction of what has happened in Canada, where, to take a specific example, *Del Monte Fancy Spinach* at 17 cents was found to sell faster than its chief competitors, *Aylmer* at 14½ cents and *Nation's Best* at 12½ cents.

Mr. Phelps' opposition to grade labeling is interesting because his company so clearly appreciates the value of grades to the housewife. In a booklet called *What's in a Can*, which is ad-

vertised in *Hygeia* for November, 1935, the American Can Company does not hesitate to say:

"If the household buyer knows the general difference between the grades, she has a better guide than price, and can decide for herself which grade best meets her particular needs and fits her budget."

But, as Administrator Riley told the National League of Commission Merchants, it is easy to understand how the manufacturer of a container which, by virtue of its opaqueness, keeps the contents of the package in the dark has many interests in common with the canner who seeks to keep the consumer in the same benighted condition. Those interests will bear closer inspection, for the cost of the tin container in which tomatoes are canned, and which you throw away at once as of no further use, varies from 40 to 60 per cent. of the total cost to the canner for the product—three times as much as labor receives in wages and 75 per cent. more than the food itself costs. (I quote the figures General Johnson gave the Senate committee which was considering extension of the NRA.) The General did not mince words:

"The farmers of this country, the laborer in the canning factory and the consumer would be benefitted if some of these profits were taken out of the can and directed into the product."

Both the American Can Company and the Continental Can Company, which between them supply 70 per cent. of the food packer's can needs, stipulate in their sales contracts that the purchaser must buy all his cans from them for three years. Provision is made for quantity discounts for the little fellow, but the big producer may arrange his prices by negotiation. In other words, the small canner pays the profit on *Del Monte* and *Libby* cans. At that, the large-scale producers do such an enormous business that they could make their own cans for about the same price they are paying, and it would be interesting to know whether they have threatened to do so—and whether that pos-

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sibility has had anything to do with the apparent inconsistency of Mr. Phelps' views.

Not only *Del Monte* but other large canners from the United States have branches in Canada. All of Heinz's English business is said to have been shifted to Canada, and Libby and the Campbell Soup Company do a tremendous business over there. None of them seems to have any particular difficulty in meeting the labeling requirements. And two members of the canners' Descriptive Labeling Committee, Mr. Edward B. Cosgrove and Mr. Frank Gerber, are directors of Fine Foods of Canada, Ltd., an affiliate of their own Minnesota Valley and Fremont Canning Companies, respectively. Mr. John Wall, president of the Canadian concern, is quoted in the *Canadian Grocer* for January 26, 1934, as saying:

"We hear a great deal about big volume on a small margin but the most successful retail grocery organization in Ontario today is the one which has no clerks in its store to offer substitutes, but simply places on the shelves of its stores products of all grades—Fancy, Choice and Standard—and leaves the public free to choose for themselves the grade of goods they prefer and can afford to pay for."

To be sure, a false declaration of grade on a Canadian label does not lay one open to criminal prosecution as it would in this country. But even so, if these canners can function under a grade labeling system on one side of the border, why are they so reluctant to try it on the other? They spend millions of dollars a year in advertising the "quality" of their products; yet for some reason they are determined not to print it on their labels where it wouldn't cost them a cent. Are they really so afraid the grades cannot be enforced—or that they will be? Their threats to appeal to the courts if necessary to prevent enforcement of the grading plan naturally make one wonder how they have been getting along under the Wiley Food and Drugs Act.

A look at the record of the California Packing Corporation, sponsors of *Del Monte*—or that of Libby, McNeill & Libby—

under the Wiley law is revealing. Between January 1, 1907, when the Pure Food Law went into effect, and August 15, 1935, thirty-five actions were brought against the California company for violations, the offenses ranging from slack fill and short weight to the use of filthy, insect-infested, moldy or decomposed material for canning. The products involved in these cases were tomato catsup, prunes, evaporated apples, raisins, beans, orange marmalade, blackberry preserves, dried grapes, pickles, pimientos, peas, raspberry jam, cherries, dried figs, fig paste, tuna fish, sardines, strawberry preserves, peaches and spinach.

Against *Libby* there were fifty-three actions during the same period, most of them for putting out rotten canned salmon, although there was at least one case of dyed wheat being palmed off as mustard, as well as other attempts at quality chiseling. The *Libby* products seized were condensed milk, sauerkraut, cider vinegar, tomato catsup, mustard, salmon, jellies, evaporated milk, raspberry jam, preserves and cherries. If either of these lists errs, it is through omission, especially since pending actions are not included. Within just the last year or so *Libby* was fined \$1125 for misbranding salmon, while *Del Monte* had to give Uncle Sam a check for \$1000 for shortweighing spinach.

Meanwhile, the Great Atlantic & Pacific Tea Company, largest merchandiser of canned foods in the world, has adopted grade labels for its own brands—but not, as many people seem to think, for all canned food sold in the A & P stores. Inasmuch as this one concern packs or controls the packing of 10 per cent. of all canned foods in the United States, this initial experiment should afford a true test of the grade-labeling plan. Officials of the company report that during the first four months the plan was in operation

“—nearly one million cases of peas, corn, tomatoes and string beans have gone through our stores carrying grade labels.”

In the beginning, only a month's supply of the new labels was printed, but recently the company has announced that Grade

A labels will also be used in the future on *A & P* whole beets, lima beans, pumpkin and squash, and Grade C labels on *Toma* cut beets, sliced beets, R. S. P. cherries and spinach. Apparently the venture has been a success!

The Food and Grocery Chain Stores of America, whose members control more than 22,000 retail outlets and through their private brands account for more than 15 per cent. of the total American pack, have also endorsed Government grades, preferring, however, the designations of Fancy, Choice, Extra Standard and Standard, with the use of a key on every label to interpret their meaning to consumers. Some members of this group are already using the grades on their own labels, but as they are putting them on the 1935 pack, it may be some time before you see them on the retail shelves.

So strong have been the trade winds that even Libby has been blown a short distance along the way to more informative labeling. Designs for new labels on this company's canned peas and beets, submitted to Administrator Riley late in 1934, called for life-size portraits of the peas to show their size, and a statement of the number of beets in the can. The meaning of Fancy and other grade terms were to be described in a chart and pamphlet given the buyer.

At that very time, however, Libby's president, Mr. E. G. McDougall, as a member of the Administrative Council of the National Cannery Association, was mapping out a campaign of obstructionism. A committee on legislation, he told the canners assembled in Chicago for their annual convention, would be appointed for each State where canning plants are operated. The function of the committee would be to contact Congressmen in that State and persuade them that any new "Tugwell Bill" containing A-B-C grades for canned foods should be defeated. Said Mr. McDougall:

"The reason back of the movement for A-B-C grades is much broader than the canning industry. It lies in the program of the Consumers' Advisory Board for grading all goods. It is

really a crusade. Cannerymen are merely being used as a spearhead to force the campaign on the entire country.

"When the Consumer's Advisory Board picked on the canners they made a mistake of the first magnitude. They are injuring their cause because canners are well organized and present a united front. But this bill will be put over on us if we don't fight."

Lest such a thing happen, lest a measure designed to protect not only the physical but the economic well-being of the American people be enacted and so prevent the canners from exploiting Grade C products as topnotch quality—"the finest in every can"—their legal counsel, Mr. H. T. Austern, also gave them a pep talk:

"Every canner should leave this meeting ready to sell the idea to other canners and to his representatives in Congress that this bill should not be permitted to pass. Don't try to do this by writing letters. It is a selling job that you have on your hands. You must go out and talk to people."

Just how much "talking" was done the public will never know. But it is a significant fact that the Copeland Bill as passed by the Senate in the spring of 1935 made no provision for the quality labeling of foods above a minimum standard.

Yet there are canners who are not afraid to tell the public the truth about their products. They have never been in trouble under the old law, and they are not apprehensive about a revision which would require them to put quality grades on their labels. Such a one is Mr. F. Hall Wrightson, prominent in both the National Cannerymen's Association and the Tri-State Packers'—the members of which he exhorted:

"So let us make up our minds to give consumers a break, to give grade labeling a chance, and in the giving, as is so often the case, I predict that we the canners will be the ones to receive the greatest benefits."

CHAPTER NINE

How Much Poison Is Poisonous?

ONE day late in the summer of 1919, a city health inspector in Boston noticed as he passed a fruit stand that some pears were heavily spotted with a white substance resembling flour. Curious to know what the spots might be, he took several of the pears along with him to be analyzed. Chemical examination revealed that the spotty coating was arsenic, which had been sprayed on the trees during the growing season to protect the fruit against insects.

This discovery opened up the most deadly serious problem with which the Food and Drug Administration has to deal. Every year the control of poisonous residues on fruits and vegetables that have been sprayed with insecticides absorbs a third of the Administration's personnel and limited funds. Although the Department of Agriculture and other agencies have been working for years to develop better methods of combating insects, poisonous metallic sprays are still the only effective means we have of destroying fruit pests. Without the sprays many indispensable crops could not be brought to maturity in a marketable state—but if the poisons are allowed to remain on the fruit to any extent after harvest, they may injure consumers. No other enforcement activity has ever subjected officials to such storms of abuse and misrepresentation as their efforts to control these spray residues. Growers on the one hand, consumers on the other, both almost hysterical at times from rage and fear, have been relentless in their denunciation. Through it all officials have tried to keep their heads and to work out the problem in a sane, constructive manner.

During the last fifty years the codling moth has been an increasingly important factor in the raising of fruit. It was probably brought here from Europe in Colonial days, and has spread easily because its natural enemies have not followed it across the Atlantic. But it is firmly entrenched all over the world wherever apples, pears, quinces and other pomaceous plants are grown. Wherever it exists, arsenicals are used to control it. Climatic conditions in some countries, as in England, make it possible to keep the pest down with a few early sprayings. In certain arid regions, however, especially where a heavy second, or even third, brood of larvæ begins to enter the fruit shortly before the first picking, repeated spraying is necessary.

To find out how much poison under these circumstances would remain after harvesting, the Bureau of Chemistry, the agency then enforcing the Federal Food and Drugs Act, in co-operation with the Bureaus of Entomology and Plant Industry, began in 1915 a series of carefully controlled experiments with pears, peaches, cherries, plums, apples, grapes, cranberries, tomatoes, celery and cucumbers. The crops were sprayed according to the schedules recommended by the Department of Agriculture, and were also treated with excessive doses of insecticides, with the idea of revising the schedules in the event that residues large enough to endanger consumers were found. Though the results of this investigation were not published until 1922 (*"Poisonous Metals on Sprayed Fruits and Vegetables"*, Bulletin No. 1027, Contribution from the Bureau of Chemistry, W. G. Campbell, Acting Chief), the experiments had been very nearly completed by the time the first contaminated fruit to turn up in interstate commerce was discovered in Boston. They indicated that if proper schedules were followed, insignificant amounts of poison would remain on the harvested crops. Unless there was over-abundant application of insecticides or unusually light rainfall, no danger to consumers appeared likely to result from the use of the sprays.

Yet here were these pears in Boston—loaded with arsenic! The Bureau of Chemistry learned they had been shipped from California. The picking season was nearly over but inspectors

lost no time in surveying all fruit held in storage, collecting samples still hanging on the trees, and reporting shipments from orchards that had been heavily sprayed. When only a few lots were found to be carrying a residue of poison, it was concluded that they were exceptional cases, due to carelessness in using the sprays. The powdery arsenic was easily removed by wiping with a cloth or paper, and shippers and growers were warned to clean their fruit before releasing it for shipment unless they wanted to have it seized under the Food and Drugs Act. This was bold talk, of course, for the Bureau had almost no funds to deal with this emergency, and only fifty-five inspectors to cover the country.

The growers, resentful of such "interference" in their business, looked on the efforts to protect the public from spray residue poisoning as a farce, refusing to believe there was any danger whatever. Had not they and their children been eating sprayed fruit all their lives? When had any of them ever been injured? Let the Government point to one death or even one illness! The trouble in Boston, they said, was caused by a falling market—the dealer merely wanted to reject that consignment; Eastern growers were jealous of the reputation of Western pears and apples, besides, cleaning damaged the fruit and impaired its keeping qualities, as well as adding unnecessarily to the cost of handling, and there was no sense to it anyhow.

Hardly a week after the contaminated pears were picked up in Boston, a Sacramento grower who had been notified by his agent that two carloads of his Bartletts had been condemned by Federal inspectors in the East was complaining that

"We have had similar telegrams from other markets and it looks as though we were going to be up against it with the food inspectors on account of the arsenic spray. We have got to spray to prevent worms and if we do spray too much and arsenate appears on the pears and the food inspectors turn them down for that reason, what are we going to do?"

Patiently the inspectors would try to explain, as they talked to individual growers or addressed public meetings in the fruit-

growing sections, that the arsenical residue imperiled the health of consumers. They would describe the famous outbreak of arsenical poisoning which had occurred in England in 1900, when 70 persons died and 6,000 were made ill because a brewer used invert sugar contaminated with arsenic in making his beer. They would tell how the matter had been investigated for three years by a Royal Commission made up of noted scientists, and how the commission had finally recommended that prosecution be brought against persons selling solid foods containing 1/100 grain of arsenic per pound or liquid foods containing 1/100 grain per gallon. They would explain how this tolerance had been used by our own Department of Agriculture as a working basis in the enforcement of the Food and Drugs Act. They would go on to say that the Bureau had found pears in interstate commerce that carried as much as 1/60 grain per pear, which was very much more than the tolerance, since the pears would average a quarter of a pound apiece. The Bureau had been as considerate of the growers as was consistent with its duty to the public, but it could not permit contaminated fruit to reach consumers.

Meanwhile, Federal and State officials were working together to maintain so far as possible a complete check on all shipments. Fruit showing excessive residue was thrown back to the shipper or grower to be cleaned, and was sampled again before it was allowed to go on the market. Then, if it still carried too much poison, it was reported for seizure. Whenever possible, the States caught contaminated shipments before they crossed the line or as soon as they reached their destination. Without this local aid from the States, the Federal Government would have been hard put to hold up dangerous consignments. Theoretically the fruit entered interstate commerce the moment the bill of lading was signed, but it was not feasible for seizures to be made at that point since the sampling, analysis and other formalities required by the law were likely to consume several hours. The determination of arsenic was a chemical process for which, willy-nilly, officials had to wait, and it took—at that time—about three hours to complete. In

the meantime, the shipment from which the sample had been taken would go on its way. In the case of such a highly perishable food as pears, the cargo would begin to roll as soon as it was loaded. There were likewise technicalities at the other end, and a carload of fruit reported by the Western District for seizure would be dumped by local health authorities before the action could be consummated. The record of legal actions during those early years therefore fails to give a true picture of all that was done to protect the public, even though this work virtually monopolized the resources of the Western District for three or four years.

Conditions seemed to improve, and annual surveys of the fruit-growing sections of the Pacific Northwest and the western slope of Colorado during these several years disclosed no shipments of pears or apples with excessive residue.

While it did not come within the province of the Bureau of Chemistry—since interstate shipments were not involved—a critical situation arose during this period in a celery-growing section near Los Angeles, where some Japanese growers had made too free use of lead arsenate in attempting to control a heavy infestation of leaf-tier. Several people in Los Angeles were apparently made seriously ill as a result of eating the celery, and considerable race feeling developed. A number of the growers were fined by local authorities or thrown into jail; and two brothers who had been mixed up in it withdrew their savings from the bank and returned to Japan. In consequence of the outbreak, Federal and State officials redoubled their efforts to instruct the growers—in English, Japanese and Chinese—as to the proper use of the sprays to eliminate the danger to consumers. It is recorded that Food and Drug inspectors in the Western District covered more than 18,000 miles in this particular campaign.

Leaf-tier, probably the worst of all the celery pests, seems to follow a schedule all its own. Nobody ever knows just when it is going to turn up, but when it does, it can be counted on to throw growers into a panic. This happened in Florida in the spring of 1925. Faced with an unusually heavy infesta-

tion, the growers went wild with lead arsenate, though this poison is not particularly effective against leaf-tier and is not recommended as such by the Department of Agriculture. But they used it anyway. And as a result, a good many lots of heavily sprayed celery had to be put under embargo. The growers, or rather the packers, who had not been noticeably impressed by the warnings previously issued by the Bureau of Chemistry, agreed then to recondition all out-going shipments.

When washing operations began, proper equipment was scarce, and there were not nearly enough wash-houses to take care of the celery that was ready to cut. The growers, however, were clamoring for their shippers to move the celery anyhow before it rotted in the fields. Most of the shippers refused to do it directly for fear of prosecution under the Food and Drugs Act, but some of them sent the rough celery out in the name of the grower. He was usually willing to take a chance since he considered his situation already as bad as it could be.

Many of the growers had their entire personal resources tied up in celery which had been heavily sprayed but which they were now unable to have washed. If the fields were not cut, the stock would rot and be a total loss. Pleading that they had used no poison, they would beg the Federal inspectors to let it be shipped without washing. One grower, pointing dramatically to a flock of children playing in the yard, exclaimed: "You'll be depriving those kids of bread and meat for a whole year if you don't let this celery go out!"

It was estimated by competent authorities in the Sanford district that the loss to the celery industry in Seminole County because of the action of the Bureau of Chemistry amounted to between \$300,000 and \$500,000. The loss was accounted for by celery left to rot in the fields, shipments that rotted while under embargo, and the added expense of washing operations.

J. O. Clarke, now chief of the great Central District of the Food and Drug Administration, but at that time in charge of operations in the Southeast reported to the Bureau that

"The Savannah Station feels fully justified in every effort which was made to provide non-poisonous celery for the American public, even though it entailed such enormous losses. One sample contained 9 milligrams of arsenic per branch. If this celery had gone into consumption without washing, assuming that the average individual would eat two branches or consume the extract from the leaves of two branches in soup, he would get approximately ten times the average medicinal dose of arsenic, which, while it might not prove fatal, would certainly be disagreeable.

"It should be considered that the absence of definite cases of poisoning does not preclude the possibility that arsenic on celery might produce serious physiological disturbances in certain individuals. The average practitioner is not familiar with arsenical poisoning and would probably diagnose physical disturbance from arsenical celery as some other disease. That this is true is evidenced from several recent cases in Chicago where individuals were poisoned with arsenic, died, and the trouble never was diagnosed until a post mortem was made months later."

One curious episode illustrates the tension that prevailed. A seventy-four-year-old business man from the North, who had been spending his winters in Sanford, alleged on his arrival in New York in May that he had been carried into the woods a month before and flogged into unconsciousness by the Ku Klux Klan. The masked men, he said, were celery growers who had somehow got hold of a letter he had written to his son to warn him against poisoned celery. Various people in Sanford, including the chief of police, flatly contradicted the old gentleman's story. According to them, he had been trying to peddle a worthless spray material and when he failed to find any customers, retaliated by writing to a New York newspaper that celery from the Sanford district was poisonous and unfit to eat. They admitted that he had been warned to leave town; but they were quite sure he had not been flogged nor mistreated in any way. What actually happened is difficult to say. It was an unsavory incident in any event.

Fortunately for consumers, Mr. W. R. M. Wharton, one

of the original "Wiley boys" who has been chief of the Eastern District for several years, has always been conspicuously successful in meeting sudden crises. He had scarcely had time to catch his breath after his troublesome labors with celery during that hectic season of 1925 when word came that an unexpected visitation of Japanese beetles and codling moths in New Jersey was likely to result in heavier spraying of grapes and peaches than ever before. The beetles, inspectors found, were confined to Camden and Burlington counties, while the moths were flourishing down around Glassboro. Samples were collected and, though no serious amounts of arsenic were found, the vineyards and orchards were kept under surveillance.

In August, however, sensational rumors that several people in the southern part of the State had been poisoned by sprayed fruit created a scare in the newspapers. Not content with press reports, the Federal inspectors, as usual, made a thorough investigation of their own. They learned that there had been considerable illness in southern New Jersey, but that it was probably due to an epidemic of intestinal flu. A physician who had been treating several cases diagnosed one of them as arsenical poisoning—without specifying the source of the poison; but, contrary to gossip, no deaths from this cause had been reported. The fact that fruit from this section had been shipped in large quantities to Philadelphia and the coast resorts with no reports of similar illness in those places gave credence to the theory that influenza was responsible for the outbreak.

Federal officials saw no reason, however, to relax their vigilance, especially since it seemed probable that apples from this vicinity would carry a high percentage of arsenic. Inspectors visited the growers individually and warned them, with all the force and persuasiveness at their command, to clean their fruit before letting it go out. Unless and until the fruit was shipped in interstate commerce, Federal authorities of course had no jurisdiction; but when apples carrying as much as the medicinal dose of arsenic—1/30 grain—were found on roadside stands, and quantities more were reported in cold storage, Mr. Wharton made every effort to get the State, for the protection

of its own citizens, to insist that the fruit be cleaned. When two truckloads of unwiped Glassboro apples dared cross the State line, they were promptly seized by Federal authorities in Philadelphia.

Every year since the discovery of those first arsenic-laden pears in Boston the Bureau of Chemistry had carried on an aggressive campaign among the growers to impress on them the necessity of adhering to the spray schedules and of cleaning their fruit and vegetables before shipment. An enormous amount of time had been devoted to this work even while the Western District was having so much trouble with rotten canned salmon, to say nothing of an epidemic of botulism so serious that it all but wrecked the ripe-olive industry. Naturally reports on the current crop of apples and pears, the first to be raised without this special attention, were awaited with anxiety. In general they were reassuring; but in storage at Winchester, Va., inspectors found several shipments of Oregon and Washington apples that carried entirely too much residue. These lots were embargoed by the State and reconditioned under Federal and State supervision.

Other disquieting reports concerned the growing use of casein and oil in the sprays in order to spread the poison more evenly and make it stay on. The residue from this type of spray threatened to be difficult to remove; but the growers were enthusiastic about it, for the oil not only killed the eggs of the codling moth, but afforded protection against the red spider, a wretched little pest that sucks the juice from the fruit.

Insect pests, however, are not the only fruit plagues that have to be fought with poisons. In humid climates particularly, fungus diseases call for repeated spraying with copper sulphate and lime—the popular Bordeaux mixture. As its name implies, this spray originated in France, where a grower who had spread the stuff on his vines to keep small boys from stealing his grapes—telling them it was as deadly poisonous as it looked—found to his astonishment that it was an excellent fungicide. Its use spread rapidly all over the world.

While not nearly so toxic as lead arsenate, the peculiar



And here are the pears, spattered with arsenic, which an inspector picked up in Boston in 1919, thus bringing about the Department of Agriculture's fight to protect consumers from poisonous spray residues.

greenish-blue deposit of copper sulphate looks just as vicious. Indeed, it was making Members of Parliament ask so many questions—at about the same time that Food and Drug officials in this country were having their first worries over residues from oil sprays—that in September, 1925, the British Ministry of Agriculture undertook an investigation of sprayed fruits. Samples from English, Canadian and American orchards were submitted to Sir Robert Robertson, the Government chemist, for analysis as to lead arsenate and copper sulphate from sprays. The examination was confined to the skin, stalk and calyx since previous studies had shown that the poisons were not absorbed by the fruit. Of the twenty-four samples examined (each consisting of about five apples) eleven were found to be entirely free from arsenic, and of the four that carried “proportions a chemist would consider appreciable,” only one contained more than the tolerance. The actual proportion in this case was 1/55 grain of arsenic trioxide to a pound of fruit. It was a sample from British Columbia. Half of the total arsenic in the samples was found to be localized around the stem and calyx.

Two lots of apples were entirely free from lead; one contained a trace that could be recognized but not quantitatively determined; and twenty carried measurable but minute quantities ranging from .0001 to .0057 grain of metallic lead per pound. The averages for all three metals, in grains per pound, were as follows:

	<i>Lead</i>	<i>Copper</i>	<i>Arsenic Trioxide</i>
13 English Samples	0.0004	0.0014	trace
6 Canadian ”	0.0063	0.0012	0.003
5 U. S. A. ”	0.0025	0.0023	0.0013

It is only fair to add that the average figure for Canada may give a misleading impression since the residue on the Western fruit was considerably larger than that on apples from the Eastern provinces. Before the installation of modern cleaning methods this was likely to be true also of the United States, although infestation is variable in any region.

The opinion was expressed that even though the amounts of lead, copper and arsenic on imported fruit were larger than on the home-grown, they were still too small to cause anxiety. Where the figures were unduly high, as in the case of the apples from British Columbia, it was attributed to late spraying and lack of rainfall.

While American apples were thus given a clean bill of health by the Government chemist in September, 1925, they seem to have been regarded by some of the British trade papers of that period as entirely too plentiful. On October 17, the *Gardener's Chronicle* might have been heard to wail:

"It is unfortunate that, just when the majority of growers are ready to sell their bulkiest crops and best varieties the market should be filled with imported fruit. Imports begin earlier every year; and the period during which we have our own markets more or less to ourselves becomes correspondingly shorter. Here is an extract from a market report issued by a leading Covent Garden salesman for the week ending Sept. 25: 'Another week of unsatisfactory trading has to be recorded. Very large quantities of Apples are now coming from the United States, Ontario, British Columbia and Nova Scotia, and low prices are the general rule. . . . The very large supplies of imported Apples have naturally affected the value of home-grown, and further have made sales very difficult to effect.' This state of affairs is very discouraging to home-growers in a season when Apples are, in most cases, the only satisfactory crop. We are often blamed for marketing varieties before they are mature, but it seems to be the only way to avoid glutted markets and low prices."

And then the home-growers got a break! Two people in the borough of Hampstead who had been eating Jonathan apples imported from the United States became ill. Dr. Henry Edward Cox, the public analyst who was attached to the staff of the medical officer of health, found that the rest of the apples these people had purchased contained arsenic in considerable excess of the legal limit. Dr. Cox then collected thirty-nine samples of American apples from dealers throughout his dis-

trict. Because his statement that only five of the apples he examined were "quite free from ansenic" has had such wide circulation—and serious consequences—it will be worthwhile to look at his actual figures, bearing in mind that the British tolerance of 1/100 grain per pound is equivalent to 1.43 parts per million. Here, then, are the results that he found:

<i>Variety</i>	<i>No. of Samples</i>	<i>As₂O₃</i> <i>Parts per Million</i>
Jonathan	2	Nil
"	10	0.5-1.0
"	3	1.0-1.5
"	1	1.6
"	1	4.0
"	3	5.0
"	1	10.0
"	1	15.0
Unknown	3	Nil
King David	5	0.5-1.0
Newtown	2	0.5-1.0
"	3	1.0-1.5
"	1	3.0
"	1	4.0
"	2	5.0

It will be seen from these figures that of the thirty-nine samples, twenty-four were actually within the tolerance, and five more were close to it. That is not to say that an excessive residue on ten apples, especially in such amounts as those found on several samples, is not important. On the contrary! But the picture of spray residue is grim enough without throwing it out of focus.

In consequence of Dr. Cox's discovery, local English dealers in American fruit were prosecuted, and an enormous amount of publicity was given the matter in the British press.

At one of these trials, Sir Edward Marshall Hall, distinguished counsel for the defense, questioned whether any case of illness could really be proved to have resulted from the consumption of these apples. Dr. Cox admitted that he did not

know what else the two reputed victims of arsenical poisoning had eaten. Nor had he ever heard of any suggestions against American apples before.

When reports of dealer prosecutions began to appear in the press, the Chamber of Horticulture, according to the *Gardener's Chronicle* of December 19, 1925, took exception to such headlines as "Arsenic on Apples," and requested the newspapers to publish "more emphatic reassurance about English apples." In the event that more dealers should be prosecuted for selling contaminated fruit.

"—the Chamber may then have to defend the home industry more vigorously by way of contrasting the American climate and methods with our own."

A few days later—December 22, to be exact—the *London Times* carried a warning from the Ministry of Health under the caption:

ARSENIC ON FOREIGN APPLES

"A circular letter from the Ministry of Health has been sent to local authorities stating that the attention of the Minister of Health has recently been drawn to the presence of considerable quantities of arsenic on the surface of certain imported apples.

"The letter proceeds: 'Two cases of arsenical poisoning have been traced to the consumption of imported Jonathan apples and a number of samples of these apples which have been examined have shown various amounts of arsenic ranging up to 1/10 of a grain per pound. The contamination of apples by arsenic has occasionally been reported for a number of years, but the quantities of arsenic found by analysis on former occasions have generally been insignificant and until recently no cases of illness have been traced to the consumption of such apples. The amount of arsenic is likely to be especially large in apples grown in dry foreign climates, where the apples are repeatedly sprayed during growth or the rainfall is not sufficient to wash off the deposit.'"

By a curious coincidence—frequently to be noted in the British press at this time—the warning against poisonous foreign fruit was followed by an item extolling Australian apples. This one had to do with a telegram from the Prime Minister's Department in Melbourne to Sir Joseph Cook, High Commissioner for Australia, protesting that residue on apples from that commonwealth was impossible because

“Australian fruit trees are sprayed, not dusted, thus the risk of dews or frosts causing the dust to adhere to the skin is not present in Australian apples. . . . The fruit is absolutely free from arsenate of lead one month after spraying in consequence of weather and other natural causes. Any deleterious substance adhering to the fruit when picked would be removed during the process of handling, grading and wrapping.”

This sounds the least bit disingenuous; but it was not the last despatch of the sort to find its way into the English newspapers.

Because of the uproar, the British Ministry of Health sent a personal representative to the United States to confer with officials of the Department of Agriculture. This representative, Sir George Buchanan, informed the Department that while British authorities were anxious to encourage the importation of American fruit, action was being forced by local officials, and public opinion had been so aroused that it might be necessary to place an embargo on all shipments from the United States. He was assured that American industry *as a whole* was already exercising proper precautions, but that because of the feeling in England redoubled attention would be given the matter. This evidently allayed his apprehensions, for no more was heard of any embargo.

The scare, however, seems to have had the same practical effect as an official proscription, for, according to an Associated Press despatch in the *New York Times* for April 7, 1926, London merchants estimated that business in American apples had fallen off from 40 to 60 per cent.

The Bureau of Chemistry prepared to cover even more

thoroughly every State where fruits and vegetables were produced on a commercial scale. It was very soon apparent that pears and apples from the Pacific Northwest would not meet the tolerance. The new oil sprays, which the growers had applied until late in the season in order to control the depredations of the red spider, were making removal of the poison extraordinarily difficult. Experiments showed that the wiping and brushing which had been so effective in previous years in removing the residue might actually rub the mixture of oil and poison into the natural waxy coating of the fruit, or even add more residue than it bore in the first place unless the cloths, gloves or brushes—whatever was used—were frequently changed. Repeated wiping would not materially reduce the residue left after the first attempt at cleaning.

The most promising substitute for dry cleaning seemed to be the washing process which Arthur Henry, a chemist in the Philadelphia station, had worked out in connection with celery. This was really a detail involving the use of solvents, such as dilute hydrochloric acid or sodium hydroxide, in an analytical method for the detection and measurement of arsenic; but Mr. Henry conceived the idea of adapting it to the commercial reconditioning of all fruits and vegetables on which arsenical sprays had been used. He had shown the New Jersey growers how to use it when they were having so much trouble during the 1925 season. So far it had brought excellent results, and it might very well prove to be the solution of the cleaning problem.

When the Federal inspectors arrived in Medford, Oregon, in that historic summer of 1926, they found that every plant in operation at the time had equipped its employees with gloves, so that each pear was receiving a careful handwiping. And almost as quickly they learned that wiping was not going to work! One of their first jobs, therefore, was to persuade the packers to try Mr. Henry's washing process on their fruit instead of dry cleaning it. This a few of the larger plants with better facilities were willing to do, and special tanks were hastily devised to meet the emergency. Some of these early machines

were crude affairs and tended to injure the fruit through rough handling.

Llewellyn A. Banks, operator of the Suncrest Orchards, had installed a brushing machine and was, in his own opinion, doing a pretty good job. Banks and the Bureau of Chemistry were old acquaintances. Before coming to Medford, he had operated an orange-packing plant in Riverside, California. His desire at that time to ship frozen oranges, a scheme of which the Bureau could hardly be expected to approve, had led to several seizures and a spirited exchange of compliments. Banks openly declared that he would shoot on sight the next Food and Drug inspector that dared set foot in his plant. When H. C. Moore calmly turned up in the face of his threats, Banks showed him a sizzling two-page telegram he had just sent to President Coolidge demanding the instant dismissal of Barclay C. Winslow, the inspector in charge at that point. He neglected to shoot his visitor, however, and Mr. Moore has lived to become chief of the Los Angeles station.

Banks had been in Medford only a few months, though he had been doing business in the district since 1921. He was tremendously popular with the small growers because he paid such good prices for their fruit—cash at that—and because he was forever battling with the co-operatives and other big packing organizations that they believed were gouging them. Banks claimed that he could market for himself and these small growers at such a low cost that he was paying them higher prices than they would have got had they sold their fruit through the regular channels.

The greater part of the apple crop in the Northwest is handled through pools, the sales being made through co-operatives or privately owned organizations. The co-operatives usually have their own sales force and marketing set-up, with connections in various foreign and domestic markets. The service they offer the grower may include not only selling, but packing, warehousing and storage. Other types of fruit-handling concerns take the grower's crop on consignment, deducting their service charges from his return. The grower simply brings his

fruit to the company warehouse, turning over all further responsibility for it to the selling concern, which may even pack and, depending on the market, store it for him. The aim of these commercial organizations, of course, is the making of profits. Naturally their paramount interest is volume. But volume brings prices down and with them the grower's profit; hence the latter's chronic distrust of the shipper. The co-operatives usually try to make a profit, too—in order to build up a surplus or to help in the amortization of their indebtedness on equipment and buildings. The grower who is struggling to meet the interest on his mortgage, often raising his crop at a cost greater than his return on it, is unable to free his mind wholly of the suspicion that he may be paying for fancy swivel-chair salaries and other highfalutin, and quite unnecessary, items of overhead. An independent shipper like Banks, with less overhead to worry about than the owner of an elaborate cold-storage plant, might well be able to market more cheaply so long as he kept his operations down to a volume he could handle comfortably. It is not surprising, therefore, that the Food and Drug inspectors found Banks something of a hero on the local stage—and one deserving of their curiosity—when the curtain rose on the spray-residue drama.

Carloads of arsenic-laden pears from Banks' Suncrest Orchards were rolling East. Shipments of hand-wiped fruit, which was also known to be carrying arsenic very much in excess of the tolerance, were moving out in steadily increasing volume from other plants. One after another they were reported by the Federal inspector in Oregon to the Central and Eastern Districts of the Bureau of Chemistry, and as fast as they arrived at their destinations were seized or put under embargo. To the outraged grower, embargo and seizure were one and the same. In either case he usually had an opportunity to recondition his fruit, for the Government naturally wanted to save it if possible, since perishable food products, unlike patent medicines, are not easily replaced. But with pears, as the owner very well knew, there was always danger that the shipment would rot and have to be destroyed. The consignee was almost certain

to disclaim responsibility for cleaning the fruit and to refuse to pay for it until it was released by the Government. And the grower would chalk up another grievance against the Department of Agriculture!

The business of the valley was coming to a standstill. It was rumored that the Portland banks were considering the recall of such funds as they had in the district. Public indignation against the Department was seething, and a mass meeting called for the evening of August 13 was attended by some five hundred shippers, growers, bankers, editors—everyone of any consequence in the community. Wendell Vincent, chief of the Western District, was to address the meeting, although there was some doubt on the part of responsible citizens as to the wisdom of his venturing to speak. Mr. Vincent felt that he should; that if he were to explain to the embattled growers, as sympathetically as possible, how really dangerous the residue was and how much it would be to their own advantage to have their fruit properly cleaned, they might calm down and co-operate. Llewellyn Banks, who was loudest in his denunciation of the Department—and indeed he had suffered more seizures than anyone else—introduced him. Banks controlled himself very well for several minutes, but then launched into such a tirade against the Department that almost anything might have happened had Mr. Vincent been somewhat less tactful. As it was, the representative of the Department was received with polite, if not altogether enthusiastic, attention, and there was no further disturbance that night.

However, the situation became increasingly tense the following week after it was found that hand wiping would not clean the Bosc pears (a rough-surfaced variety) well enough for them to meet the tolerance. The growers were desperate. Everything they had was at stake—or they thought so; and a committee was appointed to raise funds for the purpose of sending a delegation to Washington to seek relief. In his rounds of the packing houses that week Mr. Vincent would find that, one after another, they had just received telegrams informing them of shipments embargoed or seized in the East. The manager

of one plant broke down and wept like a child. There was even talk of tar and feathers for Mr. Vincent in order to show the Department how they felt. He was repeatedly cautioned to stay off the streets lest some irate farmer be tempted to take a shot at him.

Hardly had Mr. Vincent moved on to the Yakima Valley in Washington, when Banks obtained an injunction against him and the inspectors, Hugo Wichmann and Andrew J. Brown, whom he had left behind him in Medford, as well as various State officials and the Southern Pacific Railroad, on a charge of "conspiracy, persecution and malicious interference with the normal trend of business." The conspiracy, so he alleged, was headed by Wendell Vincent and backed by the bankers and "powerful co-operative interests" that had been "trying for years to bring him to his knees."

"Has the time come when honorable law-abiding citizens in order to protect their own property against the malicious attacks of entrenched Government agents must take the law into their own hands?"

This injunction was not dissolved until several months later. In the meantime it seriously hampered the work of the Bureau in keeping poisonous fruit off the market. The Suncrest Orchards packed and shipped about 20 per cent. of the fruit raised in the Rogue River Valley—or so Banks claimed; for he not only owned some six hundred acres of orchards himself, but bought up the crops of many small growers. As the men on the spot were forbidden under the terms of the injunction to report any shipments from his plant, Federal inspectors outside the jurisdiction of the Oregon court had to trace them as well as they could. This meant, of course, that they had to waste a good deal of time and money on "rainbows," as they called legitimate shipments, in trying to run down those that were dangerous.

It is not stretching the truth to say that Wendell Vincent was probably lucky to get out of Medford alive. But he did not appreciate the narrowness of his escape until some years later when the irascible Banks became involved in another

rebellion. In the meantime, Banks had acquired a militant newspaper, been a candidate for the United States Senate (against Charles L. McNary) and lost most of the million dollars he had boasted of having when he struck town. With an army of some five or six thousand followers, which he called the Good Government Congress, he was carrying on a guerilla war against the California-Oregon Power Company, the Farmers' Exchange co-operative, the Jackson County Bar Association, the American Legion, the courts, an assortment of State and county officials, and the Medford *Mail Tribune*. The insurrection raged for some time. A rival editor was publicly horsewhipped by the woman presiding over the Good Government Congress—though the next year another rival, Robert Waldo Ruhl of the *Mail Tribune*, was to win the Pulitzer \$500 gold medal "for the most disinterested and meritorious public service rendered by an American newspaper" in urging his readers to "prevent armed rebellion and bloodshed under Llewellyn A. Banks—the John Brown of the Depression." Then the election of Banks' candidate for sheriff came into dispute. A recount was ordered. When it was found that 10,000 votes were missing, Banks and a score of his friends were indicted by the Grand Jury for burglarizing the courthouse and stealing the ballots. This, he declared, was a frame-up engineered by the power company and "Medford's old gang"; he would never be taken into custody "except over dead bodies." Nevertheless, Constable George P. Prescott and a State police sergeant went to his home to arrest him. As Mrs. Banks opened the door, her husband shot the constable through the heart.

Though he has been sentenced to spend the rest of his life behind the bars for the murder of Constable Prescott, Llewellyn Banks made history. For he was the first shipper of fruits or vegetables to contest the seizure of his product by the Federal Government because it carried a poisonous-spray residue which might injure consumers. Other shippers took just as little stock as he in the Government's contention that the residue was dangerous; but they had been letting their seizures go by de-

fault, even though it meant the confiscation and destruction of their goods, rather than face a storm of hostile publicity.

The Bureau of Chemistry had been going ahead with these actions on the strength of the decision in the famous bleached-flour case, in which the Supreme Court of the United States had handed down the opinion that

"It may be consumed, when prepared as a food, by the strong and the weak, the old and the young, the well and the sick; and it is intended that if any flour, because of any added poisonous or other deleterious ingredient, may possibly injure the health of any of these, it shall come within the ban of the statute."

But the court had likewise held that it is incumbent on the Government to show that the harmful substance is present in such quantity as might render the food injurious. The mere mention of arsenic to the average person is enough to conjure up a vision of death. But the seizure of a man's property is a serious thing, and officials knew it would take more than the popular distaste for the poison to uphold such action in court. Almost the only scientific evidence available at that time was the report of the Royal Commission on Arsenical Poisoning in the Manchester beer cases in 1900. This compilation of definitely proved cases of severe chronic poisoning from arsenic—one of them following a single dose of only $1/50$ of a grain—was impressive. But it was not enough. When the Banks case came to trial in Chicago in November, 1926, the Government assembled as witnesses some of the foremost toxicologists in the country, men who could speak with authority on the effects of arsenic and lead on the human system.

Four carloads of apples and one of pears from Banks' Suncrest Orchards were on trial. The Government opened its case with the testimony of expert analytical chemists that this fruit had been found to carry as much as $1/30$ to $1/9$ of a grain of lead arsenate per single apple or pear, and that it took only three or four pieces of the fruit to weigh a pound. About half of the poison was on the cheeks, the rest in the stem and

calyx cups. Fruit of this character, the medical experts asserted, would be harmful to a considerable portion of the population. They described the symptoms of both acute and chronic poisoning from lead and arsenic, and laid particular stress on the cumulative effect of lead. Incidentally, this trial was the first time that pharmacologists had ever gone on record, at least so positively, as to the harmful effects of lead in food.

One of these physicians, Dr. William Frederick Boos of Boston, told how very difficult it is to diagnose poisoning from lead and arsenic; even if the doctor recognized it, he might have a good deal of trouble in finding the source of the poison, and unless he knew that, it would be absolutely out of the question to treat a chronic case. He gave an example:

"I was called in to see two persons who had a severe gastro-enteric ailment, both stomach and bowels, and the doctor in charge of the case—this was in Wellesley, Massachusetts—was at a loss to know why these two patients, who were children, respectively eight and ten years old, were so ill. . . . I found that these children had eaten a considerable quantity of currants which had been sprayed with lead arsenate . . . and their illness was acute arsenical poisoning. That was checked up by the analysis of gastric contents and by analysis of urine and stools. The doctor had no idea of what they had eaten and this fact, that it was poison, would not have occurred to him, as he told me. I think in the same way there are thousands of cases where people are made ill by eating these things and it is not recognized by the general practitioner because it is a wholly specialized thing to recognize the symptoms of these diseases."

The testimony of Dr. A. J. Carlson, professor of physiology at the University of Chicago, was derived directly from experiments he had made on the solubility of lead arsenate in human gastric juice, and supported the testimony of the other experts called by the Government as to the deleterious effects of arsenic and lead.

And from the University of Wisconsin came the late great Dr. Arthur S. Loevenhart, professor of pharmacology, to testify that toxicologists did not necessarily have to experiment on

human beings with lead arsenate to come to an accurate conclusion as to its pathological effects, because it was established that the poison becomes soluble in the digestive tract, and the harmful effects of soluble lead and soluble arsenic are well established by animal experimentation and by general medical experience; that, moreover, lead and arsenic are synergistic in their action, each increasing the toxicity of the other when they are administered simultaneously.

When C. W. Crawford of the Bureau of Chemistry was called as a witness by the defense, his testimony proved to be a boomerang, for he brought out that the Bureau, together with local officials in several States, had set up temporary laboratories in fruit-growing sections for the sole purpose of giving the growers a chance to have their fruit analyzed and to determine before shipment whether it was fit to send out or not. This service was available in Medford, and Banks, had he so willed, could have obtained complete information about his fruit before it was shipped.

Banks' attorney, in summing up, took care to remind the jurors that the fruit had been sprayed in accordance with the Department's recommendations; it was therefore unfair of the Government to condemn it.

The court, however, charged the jury that the Food and Drugs Act is not concerned with the growing of apples or pears; the only question (as indeed Miss Mary D. Bailey, the assistant United States attorney who was trying the case, had pointed out in her summation) was whether or not the fruit when seized might be harmful to health; there was no obligation on the Government to prove positively and finally that it would injure consumers—if the Government had established the possibility of harm by a preponderance of the evidence, that was enough.

The jury brought in a verdict for the Government, and the fruit—after a feeble pretense on the part of Banks of getting it cleaned—eventually was destroyed.

Banks later was reported to have claimed losses ranging from \$76,000 to \$100,000 through seizures of his fruit. Indeed,

he became something of a local martyr, and at a public meeting a few months after the trial, other growers in Medford presented him with a pocket piece bearing the inscription:

"A reminder of your fight against bureaucracy."

"Bureaucracy" of course is an accusation frequently made against Food and Drug officials by those whose anti-social practices they endeavor to curb. For it is one of those convenient portmanteau charges in which may be packed all sorts of personal grievances and guilty alarms. Once strapped together, it is presentable enough, since only the officials in question are likely to guess the shabbiness of its contents—and they are too busy with their job of protecting the public to bother about defending themselves.

The verdict in the Banks' trial had settled the issue of poisoning from spray residue only in respect to those particular shipments from the Suncrest Orchards. At another trial, with other shipments in the dock, the Government would have to go through the same costly and tedious procedure all over again in assembling evidence from which a lay jury might decide the purely scientific question of how much arsenic and lead are poisonous. For the Food and Drugs Act fails to authorize the setting of tolerances for poisons which will be valid in all cases. Though the Secretary of Agriculture may set an administrative figure, it must be re-established with every case that comes to trial. In other words, the Government must always show not only that a food contains poison in dangerous quantity, but just what quantity is dangerous.

To be sure, no specific tolerance for either arsenic or lead had actually been named at the Banks trial. Indeed, none for lead had ever been suggested before; in that wilderness the Department would have to blaze the trail. As for arsenic, since the Royal Commission on Arsenical Poisoning had decided after three years of study that 1/100 grain to a pound of solid food was all the human body could tolerate, the Bureau of Chemistry had adopted this so-called "world tolerance" as a working basis in enforcing the Food and Drugs Act.

But the growers in the West were now rebelling against it! The delegation which had been sent from Medford in the summer of 1926 to lay their troubles before the Secretary told him frankly that their fruit could not meet any such figure: Because of the increasing inroads of the codling moth they had been obliged to use more concentrated spray mixtures and more frequent applications than ever before; now when it was time to market their fruit they were finding that the casein and oil which had been so wonderfully effective against insects had caused unduly large residues to stick to the fruit and, more than that, were making them very hard to get off; they were doing the best they could to clean their crops, but the Secretary must not expect the impossible. If he insisted on the world tolerance he would ruin the industry—not the co-operatives and other big selling organizations, perhaps, but the individual small growers who had staked everything they had in the world, and all they hoped to have, on their five- and ten-acre fruit projects. Paying too much for their land in the first place, they had been fighting a losing battle against the codling moth, the red spider, the climate, the increased cost of handling their fruit, and now—spray residue. They were not at all sure that this crazy insistence on cleaning, which in so many cases they could no longer do for themselves, was not just another trick of the Big Fellow to make everything flow through his funnel. (Oh, yes, a lot of their horses died every year from nibbling the grass under the trees, but that didn't mean anything.)

The Secretary knew there was no cleaning method which could be counted on to reduce the residue sufficiently in every case to meet the tolerance. Wiping and brushing had failed, and while the principle of washing seemed sound enough, efficient machines for putting it into practice had not yet been devised. Moreover, nobody knew just what effect the acid solvent might have on the fruit's keeping qualities. All of these things would take time.

The question of the tolerance had to be settled without delay. Were the Secretary to demand that the industry comply

literally with the world figure he would thereby cut off a large part of our national supply of pears and apples—food products that could ill be spared. And he would, indubitably, ruin the small growers. But was the danger to public health so immediate as to justify such widespread economic calamity? The Secretary thought not. The toxicologists who testified at the Banks trial were unanimous in the opinion that toxic effects from continued small doses of the poisons in spray residue would not be acute but chronic; that they would develop after a relatively long period of time, and would be the result of slow accumulation of the metals in the body. Would it not be possible then, in order to meet the existing crisis, to fix on a tolerance which, while it might be above the world figure, would still afford adequate protection against acute poisoning—and then gradually reduce it as better cleaning methods became available?

In order to be guided by the best scientific advice in handling this difficult question, the Department called a conference on January 3, 1927, of the foremost toxicologists and physiological chemists the country could boast. Dr. Reid Hunt of Harvard was chairman. The other distinguished scientists who were able to serve on this committee—all of them men of unimpeachable standing—were Dr. Carl L. Alsberg, former Chief of the Bureau of Chemistry but at that time, as he still is, a director of the Food Research Institute of Stanford University; the late Dr. Arthur S. Loevenhart of the University of Wisconsin; Dr. Frederick B. Flinn and Dr. Haven Emerson, both of Columbia University; and Dr. Carl Voegtlin of the Public Health Service. After considerable study, the committee reported that

“—evidence as to the prevalence of lead and arsenic poisoning from the ingestion of fruits and vegetables sprayed with insecticides and fungicides is scanty and unconvincing, but inasmuch as the insidious character of accumulative poisoning by these substances causes such cases to be easily overlooked, the lack of evidence as to the prevalence of such poisoning must not be accepted as proof that instances do not exist.”

Weighing the recommendations of the committee against the Department's knowledge of what the industry would be able to do with the most earnest efforts at cleaning, the Secretary concluded that 25/1000 grain of arsenic trioxide per pound would be a fair tolerance until better equipment was perfected for washing. Accordingly, the Bureau of Chemistry was directed—in February, 1927—to bring legal actions on that basis. Opinion may vary as to how far the Secretary was justified in making this ruling. But it must be remembered that he was dealing with a crisis which could not be settled by armchair discussion—nor civil war. In any case, enforcement officials, whether they subscribed to his decision or not, had no choice but to carry it out.

The next spray-residue seizure to take the Bureau of Chemistry to court put 630 baskets of Baldwin apples on trial, charged with carrying 1/4 grain of lead arsenate to the pound. They were the property of Judge Frank L. Martin of Hutchinson, Kansas, who had shipped them to himself from his orchards in Colorado under a waybill bearing the endorsement: "*Sprayed Apples Not Wiped.*"

For Judge Martin wanted a test case. His first idea had been to get an injunction to restrain Dr. Louis D. Elliott, chief of the Denver station, from interfering with his shipments; to command common carriers to accept his fruit for shipment; and to recover damages for any losses. (The wiping machines, he said, had so bruised his apples as to impair their value.) As a matter of fact, he did file such an application and thereby got a good deal of publicity in the Denver papers, which predicted that his suit would serve to "wipe out silly Federal Bureau regulations." At any rate, the threat of it kept the growers in a constant state of agitation and effectually nullified the efforts of the Bureau to educate them in the necessity of proper cleaning.

But Judge Martin did not push the injunction. Instead, he notified the Bureau that he was shipping apples over the State line to a warehouse without cleaning them. This was in October, 1926. When the seizure was tried to a jury in Wichita on

March 21, 1927, Judge Martin stoutly denied that his apples contained any arsenic—at least he thought a heavy rain just before picking had washed away any residue, but he had no means of finding out. (“There is such a thing as good faith.”) But whether they carried any poison or not, the Government had no business to seize them, for green apples shipped to oneself for storage were not food within the meaning of the Food and Drugs Act.

Some of the Government’s scientific experts disputed his assertion that the apples were not edible. But they did not stop there. Dr. J. C. Munch of the Bureau’s Pharmacology Laboratory related in detail his experiments with rabbits, some of which had been fed with peelings from these apples, while others had been given lead arsenate in suspension. Thirty-six rabbits were purchased from the usual source of supply and kept under observation for some time to determine whether or not they were in good health. Five of them were killed, and their tissues and secretions examined for arsenic and lead. None was found. Some of the animals were then fed on peelings previously analyzed and found to contain the same amounts of lead arsenate the Government’s chemist had noted, showing that the quantity of poison did not decrease on fruit kept in storage. The peelings constituted one fifth the weight of the fruit, and the dose was about one-half pound of peelings a day. Other animals were given one third this dose of lead arsenate in suspension, introduced by means of a stomach tube. The rabbits which had been fed the peelings or given lead arsenate showed progressive loss of weight, appetite and condition; the urine showed arsenic and, in most instances, lead; on post-mortem examination, arsenic was found throughout the tissues, and lead principally in the bones. A pregnant female rabbit was given lead arsenate by mouth, and on the birth of the litter of young, careful attention was given the progeny, and post-mortems were made at frequent intervals. Though the only source of food supply was the mother’s milk, arsenic was invariably found in the tissues and secretions, showing transmission of the poison through the medium of the milk. In the

case of a young rabbit about to be weaned, much more poison was found than in the younger ones. The experiments were carefully guarded so that no arsenic nor lead could be introduced by ordinary articles of food. Three exhibits of rabbit stomachs showed one to be normal, while the others had lesions caused by the poison, varying from capillary oozing of blood to actual ulceration.

Dr. Munch further testified that after peeling the apples, he and his laboratory assistants ate them and found them all ripe enough to be edible.

Again, as at the Banks trial, the Government called on such noted authorities as Dr. Loevenhart, Dr. Voegtlin, Dr. Andrew J. Carlson and Dr. C. C. Dennie (of Kansas City) to testify to the danger of spray residue to health. So convincing was the testimony of all these scientific experts that the jury returned a verdict for the Government.

But Judge John C. Pollock, who had charged the jurors that they should take into consideration the intent of the shipper and whether or not he had acted in good faith in shipping the apples—as he claimed he had—solely for storage, set the verdict aside and ordered a new trial.

The case, however, was never retried. For one thing, the apples had been sold; and before the matter was finally settled, Judge Martin died. Not until 1930 was the fruit at last adjudged adulterated as alleged in the libel, Judge Martin's son signing a stipulation to that effect at that time. The final decree—when it came—was an anticlimax anyway, for the growers in Colorado, after going through what Dr. Elliott has called "the protest mass-meeting phase," had decided to abide by the verdict of the jury.

Conditions on the western slope of Colorado, particularly in the Grand Junction area—another irrigation project—closely paralleled those in the Pacific Northwest. The growers had bought their land during a typical boom, paying in some instances as much as \$1000 an acre. Now they found themselves at the mercy of the mortgage holders; the railroad—for the

charges were all the traffic would bear; the marketing set-up, with its usual family row between shippers and growers; and the never-ending struggle against insects, climate and spray residue. It was, moreover, the same old story of evolution from the small unit to the large, with that most rugged of all individualists—the American farmer—in the grip of an economic process that he did not understand, that he was powerless to stop, and that he resented bitterly. Willingly or not, the Department of Agriculture had to take a hand.

During the previous decade, the ravages of the codling moth throughout this section had been so great that half the orchards had had to be pulled up. It was still necessary (or so the growers thought) to spray ten or twelve times during the season, and in July the trees and the ground under them would be white with lead arsenate. None of the growers, however, believed there was the slightest danger, and Dr. Elliott and his inspectors, in carrying out an educational program like that employed in the Northwest, encountered much the same sort of distrust and antagonism. Again and again, it was only their tact, patience and courage that averted tragic consequences.

One of their hardest jobs was to persuade the growers to abandon the wiping machines which they had reluctantly been induced to install only a year or two before, and to wash their fruit instead. Nothing would convince them that this was not just another graft—that the inspectors were not going to get a rake-off from the equipment manufacturers. Vigorously they resisted the change.

John Harvey, whose experience at Belleau Wood and in other major engagements of the World War had stood him in good stead during the late uprising in Oregon, believed he had converted the last of the wipers around Hotchkiss. This was a man who lived all the way to the top of one of the high mesas. When he was reported as delivering fruit for shipment without cleaning it although it had been sprayed several times with arsenicals, Mr. Harvey journeyed to the top of the mountain to see him:

"He was not particularly cordial, but he showed me an antiquated type of wiping machine he had just purchased for \$10, and said that he intended to use it to 'clean' his fruit. He asked me if I didn't think he could do an excellent job with it, but I advised him that I seriously doubted it since wiping had never proven satisfactory, and that my experience had indicated washing in suitable solvent to be the only completely safe means of cleaning. He ran through several boxes of apples to demonstrate the efficiency of his machine, and I collected samples from the fruit after it had been brushed. I promised him to have these samples analyzed and advise him of the results.

"Some time later when I called at the local laboratory which had been established, they advised me that they had analyzed the fruit and found it considerably in excess of the tolerance, and had by telephone advised the rancher, and that he was extremely indignant.

"Owing to the fact that there had been rains and the roads up the side of the Colorado mesas cannot be regarded as thoroughfares during rainy weather, I necessarily delayed my visit to his ranch for several days. When I did get a chance, I called and found him not at home, but was advised by his wife to depart the vicinity immediately since he had sworn to shoot me on sight. I did depart, but returned the next day and found him operating a home-made washing-machine—two tanks and a pitchfork—which he had just installed.

"When I approached the packing shed, I was warned by some of the hired help that their boss would probably injure me as he had vowed to do so. Not knowing what else to do, I approached him with the intention of discussing the matter amicably. As I did so, he ordered me to leave. I asked him what the matter was, but he simply said—'You heard me, git!' When I attempted to reason with him, he picked up a club which, at the time, seemed to be about four feet long. I was later informed that it was only a singletree from a wagon, which could not have been more than two feet long. At any rate, he approached me with the club, holding it high over his head, and asserted that he was going to bash in my skull.

"Being too scared to run, I called forth the majesty of the Government. I told him that I was attending to my own busi-

ness and expected to keep on until I finished. For reasons still unknown to me the club never descended, and he finally retired to the far corner of the packing house and sulked all by himself. I completed my inspection of the premises, tested his acid, rinse water, etc., sampled his fruit, asked questions of his hired man in my customary manner and finally departed—still intact.

"The hired man earnestly advised me to leave when the old man said to, as he was afraid he would carry out his promise of shooting me. Anyway, he didn't. It's the first time I've been chased with a club since 1926, but I guess I'm getting old—I didn't like it much. I'm rather persona non grata—but those who like me least are washing their fruit."

In recounting this adventure to me a long time afterward, Mr. Harvey wrote:

"The local law-enforcement force urged me to have the man arrested. I did not see anything in particular to arrest him for, since he probably had a right to eject me from his property, forcibly if necessary. At any rate, I gladly let the matter drop, although I did visit his ranch several times later without being in any wise molested or spoken to by him.

"I have been told that a year or two after this incident, this man committed homicide in a fury of temper, and is now incarcerated in the State Penitentiary in Colorado. . . . I believe he was of definitely Irish extraction, and addicted to the use of Colorado 'sugar moon,' which is a beverage of considerable potency."

Secretary Jardine has been severely castigated for granting a more liberal tolerance on home-consumed fruit than England permitted on imports—although the figure he set seemed, on the evidence available in 1927, to be sufficiently low to safeguard against acute poisoning. Moreover, the Department stipulated from the first that the tolerance would have to be reduced as rapidly as cleaning methods improved and, as a matter of

fact, this was done until, in 1932, the British limit of 1/100 grain of arsenic per pound was found possible of attainment.

It is easy to say that the Secretary should have determined the question solely on the basis of the physiological facts; but his dilemma was not quite so simple as that. The sudden spray-residue crisis was, in a way, as much an act of God as a drouth or a windstorm, and the Western growers were as helpless before it. They had absolutely no means of meeting the lower figure and there is no reason to believe they would have submitted quietly to the wholesale condemnation of their crops. Those who know most about actual conditions during the five or six years in which the residue problem was being worked out will tell you with conviction that the Secretary's action probably averted an armed uprising. Certainly any other administrative course would, in all likelihood, have resulted in the passage of the Waterman Amendment or some similar legislation removing fresh fruits and vegetables from the jurisdiction of the Food and Drugs Act. The Waterman measure, which the late Senator from Colorado introduced on April 9, 1928, as an amendment to the Surplus Control Bill, held that the Food and Drugs Act was "not in any way applicable to any fresh or natural fruit in the condition when severed from the tree, vine or bush upon which it was grown." The Surplus Control Bill, with this rider attached, passed the Senate by a vote of 53 to 23. When it reached the House, however, that body struck out everything except the title and submitted a bill of its own, which was subsequently passed by Congress, only to be vetoed by President Coolidge. What protection consumers would now be getting against spray-residue poisoning if the Waterman Amendment had been enacted is something which critics of the Department might contemplate with profit.

The picture sketched for Food and Drug inspectors ten years ago has been filled in rather than changed by the Depression. Today it is reflected in such letters to various officials of the Government as this one which a woman in Wenatchee, Washington, wrote to the President just before Christmas, 1934:

Mr. Franklin D. Roosevelt
Executive Mansion
Washington, D. C.

"DEAR SIR:

"You once told us that if we were going to loose our home and we could not get help otherwise, we should write direct to you, so I am taking the liberty of telling you of a condition here that has been and will continue to drive the apple growers from their homes unless it is stoped. You are the only one that can do it, as every other way is blocked by the privileged few. We have found it useless to try for help in the regular channels.

"What I am trying to tell you about, is the enforcement by the Dept. of Agriculture, of arsenic-lead tolerance on Washington apples. Please read the history of how this graft started and what it is doing to the apple industry of this state.

"Several years ago the fruit orchards of this district consisted of 5 and 10 acre tracts, with a family on each one who was making a good living. Then the Bigfellow came here and wanted this valley for himself. This bigfellow conceived the idea of one big orchard and one big packing and selling unit. His plan was made so attractive that most of the growers fell for it. Those growers soon found that the Bigfellow had mortgages on thier homes.

"Now here is where this Lead-arsenic tolerance comes in. There are many of we growers that refused to sign up with this unit. These growers were told that the Dept. of Agriculture demanded that they clean their fruit and that the only place that it could be done right was in the big sheds. We could see that it was a graft to force us into the sheds, therefore we made our own cleaners. We sold our fruit to independent buyers and had plenty of money left, while the people who were with the big unit were in debt, so they started to brake away from the unit. Then we learned that the Dept. of Agriculture was going to lower the tolerance still more, which they have done every year since untill this year our fruit is ruined by the strong chemicals used in cleaning them and the cost has become so great that 80% of the growers have debts larger than the value of their orchards. Many of us have become so discouraged that they have taking their own lives. This is the influence of the Bigfellow that caused this condition.

"Now Mr. Roosevelt if you will investigate this condition you will find that all I have told you is true and I have not told the half of it. You will also find that our newspapers, our traffic association, our commercial club, and the officers of the so-called growers association are all controled by the big fellow. You will find that tolerance law is not enforced in other states to the degree that it is in Washington. The apple growers of other states use the same kind of spray material and the same amount as we do, yet we are told that rain washes their apples while it takes strong chemicals and hot water to do it here. If this material is poison on our apples it is also poison on other apples. The truth is, that is not poison at all in the small amount we use. We have proven that.

"We want to have this tolerance raised so we can clean our own fruit again, thereby freeing ourselves from these organized grafters.

"You may think it queer that I a woman should write you about this. You promised us help, so here is why I am asking it. We got along fine for years, we raised our family and put away som money for the days when we could not work. Then this money graber came and the expence of growing and packing our fruit grew and grew. Our savings was soon gone, and our debts grew, untill last year we were compeled to mortgage our home to pay them. That is why I am writing you I am not going to give up untill I have tried every means possible to save the home we have worked so hard to get. Then there is my neighbors, How I would love to be able to help them. If there is anything I can do Any information you want, please let me know."

One cannot but sympathize with many of these small growers, for there is no denying that their circumstances are anything but happy. The fact that they are all wrong in some of their ideas makes their lot no easier to bear. The shippers and brokers—that is to say, the commercial elements within the industry—obviously have for them the same peculiarly interested consideration that a cat has for a mouse. Beyond question, thousands of growers are being exploited in the commercial cleaning of their fruit, just as this woman says.

And yet, much as some of the growers are to be pitied, the difficulties of which they complain all fade to insignificance when compared with what might have happened if the Department of Agriculture during those first few years of the residue problem had not granted them a more lenient tolerance, and worked out for them the cleaning principle which has made it possible for them at last to meet the world figure. Few of them realize they would now be paying royalties on that essential washing process but for the fact that Arthur Henry took out a public-service patent in their behalf, while the Department fought for seven years to protect it for them against the claims of equipment manufacturers who would have charged them for using it, just as they do for other processing methods. The final decision in the patent case—in favor of the public—was handed down by the United States Court of Customs and Patent Appeals in 1934.

The growers would save themselves a good deal of trouble if they would use better judgment in applying the early sprays. The Bureau of Entomology for years has been preaching the doctrine of "Make your first spray count." But growers are much like other people: Some of them can be shown, while others will never learn; some are painstaking in anything they attempt, others sloppy or reckless. Those who exercise care in applying the poison are likely to be successful also in removing it, even with crude, homemade washing machines. A farmer whom the inspectors came across last summer was doing a wonderful job with a trough and a bushel basket. Those who have more elaborate equipment do not always bother to use it—except, perhaps, to wash their apples with water to improve their appearance. Inspectors have repeatedly observed instances of washing equipment lying idle while the owners serenely packed contaminated fruit without making any effort to clean it.

No matter how hard pressed the grower may be, it would certainly seem to be cheaper for him to clean his fruit properly in the first place than to have it thrown back at him for reconditioning. The Bureau of Plant Industry has developed two simple types of washing equipment that any good carpenter

can put together. The paddle washer, recommended for apples, can be built and installed at relatively small expense. The cost of washing varies from one to five cents a bushel, depending largely on the quantity of fruit handled and the equipment used. Combination oil and lead-arsenate sprays, however, require a tandem wash—that is, alkali and acid successively—as well as heat. When the washing is done properly, it improves the appearance of the fruit, makes sorting and grading easier, and does not injure the keeping quality.

It has been suggested that sprayed fruit be washed at Government expense or by the Government for a nominal charge. The arguments are that the job would be done right, and the small grower would be relieved of this financial burden. The idea is superficially attractive, but under our national form of Government there are certain obstacles in the way of its achievement. Such an undertaking would require a veritable army of inspectors, to say nothing of a huge appropriation which, after all, would be spent in relatively few States. There is no reason to believe the taxpayers of Connecticut, for instance, would welcome the opportunity to underwrite an industry in Oregon or Colorado. It is hard enough now for the Food and Drug Administration to get any money. The appropriation for 1936—even with its increase over previous years—allows only a fraction more than a cent a person to safeguard our entire national supply of medicines and foods. The third of this pittance which, as usual, will be devoted to the regulation of sprayed fruits and vegetables would not begin to pay for an adequate washing service. But even were the Federal Government to attempt such a plan, it would have no authority to make the industry take advantage of it. The States, of course, could enforce their own washing projects, and many enforcement officials believe they will eventually have to come to something of the sort unless a substitute for lead arsenate is found.

Probably the greatest difficulty that enforcement officials encounter in trying to control the spray-residue situation is the refusal of the industry to recognize the menace to health. The grower who has lived with lead arsenate for years on end, who

has breathed it and handled it and all but saturated himself with it, scoffs at the razor edge which "bureaucratic theorists" would have him believe is the margin of safety. Tell him, he demands, an authentic case of injury from handling the spray or eating the fruit.

Let us accept that challenge.

F. W. was a market gardener, who lived in a fruit-growing section in the east of England. He had been spraying his trees with lead arsenate every spring for a great many years. (English weather conditions, as you may recall, permit lighter spray schedules than would be effective in the arid regions of North America.) He had never been ill except for an operation for appendicitis in 1913. For seven years, however, he was troubled with a bright red rash on his hands and face. It grew worse in the spring of 1919, and his face and eyelids became markedly swollen. The following November, he consulted Sir William Henry Willcox, physician to St. Mary's Hospital in London and advisor to the Home Office. The Home Office, as readers of detective fiction need hardly be reminded, has supervision over Scotland Yard, and the medical advisors of that institution, in fact and fable, have very little to learn about poisons. Sir William, it is reasonable to suppose, knew a thing or two about arsenic and lead, and their effects on the human body. In examining F. W., he noted the rash on the backs and palms of the hands; some thickening of the nails, and tenderness of the fingertips; and rash and swelling in the face and neck. On the face, neck and ears he found also some scaliness, and patches of brown pigmentation. There was albumin in the urine, as well as epithelial and granular casts. At a later examination, arsenic was found in the urine and also, to the extent of 2.8 mg. per 100 grams (which is a good deal of arsenic) in the hair. The case was so interesting that Sir William's colleague, Dr. Graham Little, showed it at the Dermatological Section of the Royal Society of Medicine that month.

In spite of the utmost precautions on the part of F. W. to avoid any contact with arsenical sprays, the urine still showed traces of arsenic in March. The middle of March F. W. moved

to London in order to keep away from any possible absorption of arsenic. His health began to improve. In April, the urine was free from both albumin and arsenic, and he returned home. Soon he became worse again.

On July 20th he was admitted to St. Mary's Hospital under Sir William's care. At that time the skin eruption had become altered. There was marked swelling of the face, eyelids and skin around the ears, with brown discoloration and peeling. The armpits were also involved, and the affected skin in this region, and on the face and neck, showed a vesicular eruption with a pus discharge. There was also a discharge from each ear, due to the affection of the skin of the external auditory meatus. The skin of the lower back was scaly and discolored; the hands were red and painful; the heart was dilated; and there was albumin in the urine.

The patient remained in the hospital only four days, returning home at his own request. His condition became gradually worse, and he died on September 22, 1920.

In describing this case in the *British Medical Journal* for August 26, 1922, Sir William said:

"I have no doubt that the illness of this patient was due to chronic arsenical poisoning caused by absorption of lead arsenate from the spraying preparations with which he had been in contact for years. The temporary disappearance of albuminuria in April, 1920, when there had been freedom from possible absorption of arsenic for a few weeks, is characteristic of arsenical albuminuria. It is probable also that the marked pathological affection of the kidneys was partly contributed to by the lead present in the arsenical spray."

That acute and chronic cases of poisoning from handling lead arsenate are by no means rare among the orchard hands and packing-house workers of our own Pacific Northwest was brought out in 1933 when the Food and Drug Administration prosecuted the Washington Dehydrated Food Company for shipping apple chops contaminated with arsenic and lead from spray residue. Dr. George W. Cornett and Dr. Paul J. Lewis,

practicing physicians in Yakima, Washington (in the heart of the fruit-producing country), testified that every year they each treated a dozen or more cases of lead or arsenic poisoning that could be attributed to eating fruit, spraying fruit or handling lead arsenate. At the same time, Dr. Paul J. Hanzlik, professor of pharmacology at Stanford University and one of our outstanding pharmacologists, testified on the basis of his own experiments that the daily consumption over a period of three years of as little as 1/1000 grain of lead would produce chronic lead poisoning, while 1/180 grain of arsenic every day for several years would bring about chronic poisoning from that metal. His testimony was confirmed by Dr. Harold B. Myers, professor of pharmacology at the University of Oregon Medical School. The jury's verdict was for the Government.

Poisoning from eating sprayed fruit is always a risk where children have the run of the orchards. There was, for instance, the little Scribner boy, who was playing with some Japanese children under his father's fruit trees. From time to time during the day one child or another would pick up a pear, take a few bites out of it and throw the rest away. That evening, every one of them was taken sick with vomiting, diarrhoea and severe gastric pains. The physician who was called diagnosed the trouble as arsenical poisoning, presumably from the spray residue on the fruit. The Japanese children recovered in a few days, but the Scribner boy—who, one suspects, had dared to help himself more generously—was a very sick child, so his father told Inspector Russell. Several physicians who were called in consultation reported that the escharotic action of the arsenic had destroyed parts of the mucous membrane lining the alimentary tract and that this was sloughing off. It was six months before the boy was well again.

Ten-year-old Ralph Dodge died from eating perhaps a dozen sprayed apples picked up in the orchard where his father was employed. When the family doctor saw him the day after his indulgence he was too far gone to be helped, for he had been having convulsions, and his throat was closed, making it impossible to give him any medication by mouth. The autopsy dis-

closed damage to the liver and other organs that was clearly indicative of metallic poisoning. On chemical analysis these organs were found to contain 2.5 mg. of arsenic trioxide and 6.3 mg. of lead per kilo of sample. This, of course, was not all the poison the boy had taken into his system, for some had been distributed to other tissues and some had been eliminated. But there was enough for the death certificate to say:

“Cause of death—Poisoning, Acute, Arsenical.”

It was lead arsenate on a neighbor's grapes that killed little Naomi Wilkin. Traces of lead were found in her stomach, and poisoning from that metal was reported to the State Board of Vital Statistics as the cause of her death. Other grapes from the same vines which were analyzed by the Food and Drug Administration carried .005 grain of arsenic trioxide and .0093 grain of lead.

It should be noted that the fruit in none of these cases had ever been on the market. But such instances show what might happen if the Food and Drug Administration were to exercise less vigilance in preventing unwashed fruit from reaching the consuming public.

But the real risk from arsenic and lead in spray residues is not acute poisoning! Rather the danger lies in the slow, insidious undermining of health from the accumulation of the metals in the soft tissues and bones. When this reaches the point where the individual is susceptible, definite evidence of intoxication appears—though the symptoms are common to so many other ailments that their true significance may not be recognized.

Chronic poisoning from arsenic has been known to develop from a single large dose, the effects persisting for weeks or even months after exposure, with new symptoms arising as the early ones disappeared. Usually, however, it is due to prolonged absorption of small quantities. It may manifest itself in loss of appetite, diarrhoea or constipation, impaired vision, a catarrhal condition of the mucous membrane of the nose and larynx, jaundice, skin eruptions and pigmentation, and motor paralysis beginning in the toes or fingers. Attention has lately been di-

rected to a possible relationship between arsenic and such diseases as eczema, cancer (particularly skin cancer) and Raynaud's disease—a curious breakdown of the circulation in the extremities which sometimes results in gangrene or amputation. Dr. A. F. Kraetzer of the Cornell University Medical College has reported a case of Raynaud's disease in a man who had been exposed three years before to arsenical insecticides in a greenhouse. The patient recovered completely when therapeutic measures were taken to remove the arsenic from his body. But the case prompted Dr. Kraetzer to comment that

“The enormous use of arsenical insecticides makes fruits and vegetables a potent source of poisoning.”

Ten cases of cancer “of certain arsenical origin” have been reported by Franseen and Taylor of the Cancer Commission of Harvard University. All these people developed the disease after a long latent period—in one instance, forty years after exposure. Another individual received approximately .05 grain a day over a period of two years, but did not develop cancer until twelve years later.

In setting a tolerance for arsenic under the original Pure Food Law, officials have been able to consider only one article of food at a time. If pears, for example, did not contain arsenic in excess of 1/100 grain per pound, they were not in violation of the law. But suppose they were just barely within the tolerance—and that apples, cauliflower, cabbage, celery and other sprayed fruits and vegetables carried about the same amount: All of them would be *legally safe*, but actually, if you ate combinations of them every day, they would provide a steady intake of poison which might be more than your system could tolerate.

Arsenic, moreover, is a natural constituent of many common foods. Shell fish often contain a good deal more of the metal than would be considered safe if it were an inorganic form. But nobody knows whether poison from this source should be taken into account or not in setting the tolerance, for there is at

present very little reliable data as to the toxicity of organic arsenic in food.

When arsenic—and lead—are found in manufactured foods, like gelatin or cocoa, their presence may be due to carelessness; the manufacturer could prevent it if he would. Rather than go to the trouble and possible expense of making his product wholly safe, however, he may cut down the contamination just enough to meet the tolerance and so get by. Officials can do nothing about such a product. But because poisons on fruit are at present unavoidable, it does not follow that poisons should also be permitted in other foods where there is no excuse for them. A really adequate law for the protection of consumers would give the necessary authority for considering other possible sources of poisons in setting a tolerance for any single item of food.

This point is even more important with respect to lead than it is with arsenic, for lead creeps into food in all sorts of strange ways. Within the last two years—since Hugo Wichmann, Paul Clifford, Frank Vorhes and other crack chemists of the Food and Drug Administration worked out their amazingly effective new method for determining minute quantities of lead—a sweeping survey of all food products has disclosed some curious instances of lead contamination, chiefly in sardines, cocoa products and tea.

The sardines were put up in tins with lead-soldered seams. The oleic acid used as a flux in applying the solder would fry through the seams, carrying with it enough of the metal to pollute the entire contents, especially since the oil in which the sardines were packed served to spread the poison to every fish in the can. Another means by which imported sardines were contaminated was the lead grills on which they were cooked. The fish were subjected to a sort of deep-frying process and at the high temperature required would take up a large amount of lead.

Lead gaskets in the manufacturing machinery have made trouble for some types of food products, while soldered joints in one apparatus were responsible for the seizure of adulterated

cocoa. Another source of contamination was the lead seal fastening the wire with which every bag of African cocoa bean was tied. Workmen, in opening the bags, would sometimes let the seals drop inside, with the result that they would be carried along with the beans, which were about the same size, through the winnowing machine, and on through the whole process of manufacture. One seal, weighing approximately 40 grains, has been shown by an investigation of the Boston station to be sufficient to contaminate a ton of cocoa to the extent of .02 grain of lead per pound. Some manufacturers said they had been of the opinion—before the new method of detecting lead was worked out—that such cleaning precautions as the electromagnet designed to remove nails and other metallic substances would draw out the lead. A simpler—and more plausible—alibi would be that they did not know it was there since there was no certain means of detecting it. Now that the lead seals have been eliminated, however, there is no further danger of contamination from that source. As a matter of fact, in the samples from many of the manufacturers investigated, no excess of lead was found. A thorough inspection of the plants was made in every case, and samples of raw materials as well as of the finished products were analyzed. It should be pointed out that the cacao beans from which chocolate and cocoa products are manufactured contain from .001 to .007 grain of lead per pound as a natural constituent—probably derived from the soil. Alarmist reports that chocolate bars and other candies consumed largely by children are dangerously contaminated are without foundation and serve no other purpose than to exploit the racket of the sensation mongers who spread them.

Tea was found to be adulterated with lead from the foil with which the tea chests were lined. Various other foods, by revealing an affinity for the metal, have likewise caused their containers to be scrapped—with a minimum of argument on the part of the manufacturers. For the can makers, it is only fair to say, despite their anti-social attitude with respect to quality standards, have in this matter co-operated admirably.

Investigations now going on are concerned primarily with

jams, pectin, apple chops and other by-products of the fruit industry to determine how far contamination from spray residue may be carried over into processed foods.

Epidemics of lead poisoning have been traced to many unexpected sources. A number of people were poisoned at one time by fine particles of lead in flour when the metal was used to counterbalance a grinding wheel in the mill. Cases of illness have frequently been reported as the result of drinking home-made beverages fermented or distilled in utensils glazed with lead. Lead paint seems to be a particularly prolific source of poisoning in children, who are so likely to pop anything into their mouths—lead-painted toys or blisters of paint they have peeled off from verandas or railings. But by far the most widespread cause of lead poisoning (except of course for industrial hazards) is the drinking of water contaminated by lead pipes or lead-lined tanks.

No matter whether lead is swallowed, inhaled, or absorbed through the skin, most of it is eventually lodged in the bones, which have a curious avidity for the heavy metals. So long as it stays in the skeleton, according to Aub (the great authority on lead poisoning), it doesn't do much harm, except perhaps to the teeth; but once the metal is released into the bloodstream, trouble begins.

Lead poisoning, says another authority,

“—may well be thought of as a counterpart of syphilis not only in the variety of its effects on the human system but in the manner in which it may be dormant and unsuspected for years, apparently innocuous, until some alteration in the metabolic process liberates it with unimpaired venom. Like syphilis, it is a contributing cause of many a death for which it does not receive its rightful share of the blame.”

Marked anemia, because of wholesale destruction of the red blood cells, is one of the first symptoms to appear. The victim complains that he cannot eat; he is constipated and sick at his stomach; his breath is bad; there is an odd metallic taste in his mouth; he has no pep. His symptoms are so commonplace (you

can read them in almost any patent-medicine advertisement as indicating the need for any kind of nostrum) that unless he is a house painter or plumber or is engaged in some other occupation in which lead poisoning is a recognized hazard, neither he nor his physician may suspect the metal, especially if he has not been exposed recently—or, to his knowledge, at all. The most distinctive sign, perhaps, is the blue streak, or "lead line" in the gums, close to the teeth. It is due to the precipitation of lead sulphide from septic processes in the mouth, but may be absent if the teeth and gums are kept clean. Lead colic, with its paroxysms of acute abdominal pain, may come on rather suddenly, last for several days, and then disappear, leaving the patient utterly exhausted, only to recur at intervals as lead pours into the bloodstream. Still another characteristic manifestation of lead poisoning is wrist drop, or "painter's palsy," as it used to be called. This is a curious muscular paralysis starting in the middle and ring fingers—which cannot be straightened—and spreading to the other fingers and the wrists, while the forearms slowly waste away. Optic neuritis, accompanied by degeneration of the retina, is a symptom of lead poisoning that impairs the vision and may even lead to total blindness. (It is more familiar as a symptom of poisoning from wood alcohol.) Lead works other such degenerative changes as hardening of the arteries, with high blood pressure; contracted kidneys; and hypertrophy of the heart. When the circulating metal injures the brain tissues, there are headaches, delirium, hallucinations, convulsions, and other disturbances that may end in madness.

Many times the symptoms of lead poisoning are diagnosed as gall-bladder diseases, Bright's disease, or chronic appendicitis. Dr. R. L. Waterfield of Guy's Hospital in London has reported a case with the characteristic wrist drop, anemia and colic which did not manifest itself until twenty-four years after exposure, and was then diagnosed as duodenal ulcer and muscular rheumatism. When treated for lead poisoning, the patient recovered.

A certain amount of lead is incident to the environment of civilization and unavoidable. We may breathe it in from dust or gas, or eat it in foods contaminated by Mother Nature her-

self. Scientists working in the Kettering Laboratory of Applied Physiology at the University of Cincinnati have found that the daily intake from this source is 0.0037 grain. They concluded from their study of lead excretion by working men that poisoning is to be expected under conditions where an average of 0.0196 grain is excreted every day. If this is true, an intake of 0.0159 grain from other sources, such as spray residue, must be prevented if chronic mass poisoning is not to take place.

With such a narrow margin of safety, every effort has been made to find a substitute for the deadly lead arsenate. The fluorides, for a time, looked as if they might be the answer to prayer. They were good bug killers; they did not, like calcium arsenate, burn the trees; and they seemed, in the relatively small quantities found in spray residue, to be safe enough for human beings. Then the Smiths, at the University of Arizona Experiment Station, proved that drinking water containing as little as one part in a million of fluorine, if consumed at the rate of four to eight glasses a day, would produce mottled enamel in teeth. This condition is not only unsightly in appearance, but makes the teeth so defective in structure and strength that they often have to be replaced at an early age with false teeth. Mottled enamel has long been known to be endemic throughout large areas of the United States, but is now recognized as a health problem of alarming proportions. Inhabitants of the regions where the water is contaminated with fluorine from the soil are affected by thousands. In one town in the Texas Panhandle the United States Public Health Service has found that 90 per cent. of the children who have lived there all their lives and used only the city water have mottled teeth that can be classified as moderate to severe; but all the children are affected to some degree. To expose them through still other means is unthinkable. Daily consumption of one or two apples, each carrying as much fluorine as would be found in four glasses of water, might reasonably be expected to have an injurious effect also upon the teeth of children not otherwise exposed. In the face of such facts the Department of Agriculture has warned the industry to beware of fluorine insecticides exploited

as requiring less caution in their use than lead arsenate, and has set a tolerance of 1/100 grain of fluorine per pound of fruit.

While it is not of much use in controlling the codling moth because of its caustic effect on the trees, selenium has been tried out in California on citrus fruits and raisin grapes. Selenium is a rare element akin to sulphur, but less well behaved. The form in which it is used in sprays may be, as its promoters, McLaughlin, Gormley and King of Minneapolis, claim, of relatively low toxicity. But the Department of Agriculture, in view of the poison's ghastly record, does not look with favor on selenium and tries to discourage its use. The danger is that it will enter the plant metabolism and replace sulphur, especially where the soil is low in the latter element, turning the animals that ingest it into monstrosities. This is no idle worry. Selenium has been definitely proved to be the cause of the dread alkali disease in cattle, horses and poultry. Certain sections of the West, where alkaline springs were once held suspect, are now known to be cursed with seleniferous soil. Animals foraging on these lands lose the hair from tails, manes and hides; hoofs slough off or are otherwise so badly injured that the animal is lamed. The whole body seems to be affected, and while the animal may recover, it is never so valuable again. When poultry is poisoned by selenium, the eggs fail to hatch or else produce decidedly inferior—even deformed—chicks. All in all, it is just as well that the use of selenium is not gaining more rapid headway.

Yet in spite of the grotesquely dangerous possibilities of selenium, the Department of Agriculture is not empowered to forbid the use of the poison as an insecticide. Nor can anything be done under the present Food and Drugs Act to protect the public against fruit impregnated with selenium that has entered the growing plant from contaminated soil—even where the contamination is due to spraying operations. For the poison in such cases is a natural constituent of the fruit, and the Wiley law applies only to *added* deleterious ingredients. In controlling selenium residues on the fruit, the Government is handicapped as with any other kind of spray residue in having to wait until

contaminated shipments turn up in interstate commerce before taking action. Then, if the shipper chooses to contest the seizure of his goods, the Food and Drug Administration, at a considerable expenditure of taxpayers' money, must marshal a host of scientific experts to prove to a lay jury that selenium in the amounts present might injure consumers. Spokesmen for the International Apple Association fondly refer to this extortionate performance as their "day in court."

For controlling various vegetable pests, organic materials are now being tried. Entomologists in the Department of Agriculture are inclined to believe that derris and pyrethrum when properly applied will not leave harmful residues since these poisons become inert in a comparatively short time after exposure to sunlight and air. That is not to say that there is any justification yet—or ever will be—for exploiting them as entirely free from danger to consumers.

The active principle of derris is thought to be rotenone—a substance which the natives of some South American countries use to stupefy fish so that they will come to the surface and be easy to catch. Just what effect the poison may have on human beings is still an open question. But it seems to be of value in controlling cabbage worms, Mexican bean beetles and the insects that attack spinach, lettuce and squash.

Pyrethrum also is effective against some of these pests, and promises to be a specific for celery looper and leaf-tier. Neither of these poisons has so far distinguished itself against the codling moth. One reason may be the difficulty of making them adhere. The same thing is true of nicotine, which has been used rather extensively, considering its cost, in combination with oil sprays.

The use of arsenicals, according to the Department's experts, should be limited to crops which can be made safe for consumption by washing or stripping. Lead arsenate is not recommended for use on vegetables under any circumstances. Every now and then John Farmer takes a notion to try it just the same, sifting the poison through a burlap bag or peppering it through a tin can with holes punched in the bottom. This irresponsible practice fortunately seems to be on the wane. Costly experiences

with seizures, when whole crops have been destroyed because of lead and arsenic residues, have taught the farmer that spreading this perilous stuff on leafy vegetables is not the thing to do. As professional alarmists like to point out, the Food and Drug Administration has seized cabbage carrying appalling amounts of lead and arsenic. But the thing to remember is that products like this *are* seized—seized and destroyed. For there is practically no risk of really dangerous consignments ever reaching the consuming public once they have entered interstate commerce. And such accidents within the limits of any State are rare.

With only seventy-eight Food and Drug inspectors to cover the country, it is not to be expected that every single shipment of fruit and vegetables which crosses a State line can be examined individually by Federal agents. But that's not necessary. Examination of lots which represent a cross-section of the produce in each locality—supplemented by the Department's long familiarity with spray schedules and their relation to residues, with local climatic conditions, with the practices in various producing centers, and with all the other factors that make up the spray-residue problem—is sufficiently revealing.

Thanks to the remarkable co-operation that has been built up among Federal, State and local authorities in dealing with spray residues, a basic control has been established. Growing crops are kept under constant surveillance. Thus it is possible roughly to forecast the size of the crop, the amount and kind of residue it is likely to carry, and the approximate time it will begin to move. Warehouses, packing plants—which usually own the washing machines—and produce yards operated by the railroads are likewise carefully watched. As consignments come in, they are examined by local inspectors who can embargo them for washing or, if they are hopeless, condemn them outright. Suspicious lots destined for interstate transport are reported to Federal authorities. Meanwhile, the Federal agents, working night and day, will have been reporting shipments to destinations. On the other hand, inspectors picking up contaminated shipments on tips from local authorities check back to the

inspectors at the point of origin, so that they may look out for further lots from the same source.

To catch contaminated lots that may be bootlegged by truck, border patrols are maintained on highways leading out of the producing areas. This kind of traffic has increased enormously in recent years. Independent buyers collect fruit or vegetables wherever they can, regardless of residue, and market their loads in neighboring cities and States. While inspectors hold up the trucks—sometimes as many as forty an hour in some sections—analysts with their chemical apparatus in a Department car set up a temporary laboratory at some central field point. Samples are analyzed immediately, and if they show high residues the news is telephoned ahead. When the truck rolls into its destination, a local official is waiting to put its load under embargo. In most cases seizure recommendations go to the United States Attorney—for him to file the libel—less than twenty-four hours after the consignment has been shipped.

So speedy is the action that shippers have complained—even by telegraph to the White House—that their apples were being condemned without analysis. The amazing expedition with which this work is carried on is due in no small measure to the analytical methods for lead which have been worked out in Dr. Ward B. White's Food Control Laboratories. These have now been developed to a point where it takes but thirty minutes for an accurate determination of the metal instead of three days, as used to be the case. To show you what this means in the way of greater protection for consumers: Inspector Ahearn, one evening last fall, brought to the laboratory some samples he had picked up at a State line crossing twenty miles away. Analysis, thanks to this new method, was completed by ten o'clock. Two lots of fruit ran high. But Sulphur Springs, where the field station was located, is just a small place. There is no telegraph service after five-thirty, and Central goes to bed at nine. It was therefore impossible to get a message through to the co-operative city officials at Joplin. The market at Joplin, as it happens, is very brisk, many lots of fruit being sold within an hour or so after arrival. Much of this trade is carried on

during the night or early morning hours. Knowing this, Inspector Ahearn jumped in his car and drove the fifty miles through a pouring rain. He arrived soon after midnight, and locating the two trucks on the market, stayed with them all night until a city inspector turned up at last to put them under embargo.

This road patrol work is not without its thrills and dangers, especially in the hill region near the Arkansas-Missouri line, where some of the roads cross the border at very lonely, isolated points. The inspectors are supposed to work in groups. But one night word came to young Roswell Jinkins that the truckers, having got wind that the Federal inspectors were on the job, were making a detour. Without saying anything to anybody about it, he went off by himself to patrol the detour—one of the most forsaken roads in the Ozarks. He had just got nicely established when a totally strange State cop drove up and introduced himself. He was soon followed by a Department of Justice agent. As the Food and Drug inspector wrote me:

"The Department of Justice agent stated that they (about four in his party) were working with the Missouri officer that night and expected to encounter robbers at this location. He explained that the State patrolman's car, which was easily identified as a police car, would be hidden across the road behind a filling station, while their private-appearing car with Okla. license would remain beside the U. S. D. A. car in full view.

"The Depart. agent requested me to notify them if I saw anything going on which looked suspicious and that they could be found in his car, which was well equipped with shotguns and machine guns. I agreed to do this, thinking *what have I run into*, and hoping all the while that there would be no occasion to make this report or for these guns to come into action, as I felt I would be rather vulnerable if the fireworks began while I was on top of a truckload of apples taking a sample.

"These agents kept watch for a couple of hours and finally left, deciding that their game was in another territory. The net result of the evening's excitement was several samples of apples, and one apple trucker was deterred from proceeding into Mis-

souri by the presence of a State trooper until he repaired the tail light on his truck."

The next day, young Mr. Jenkins was interested to learn that the banditti he had been expected to turn in were none other than Pretty Boy Floyd and his pals of Kansas City Massacre fame. It was just as well that they failed to put in an appearance. While a law enacted in May, 1934, would have provided heavy punishments for them had they attempted to shoot up the Department of Justice agents—or other such Federal officers as marshals, deputy marshals, Post Office inspectors, Secret Service men, members of the Coast Guard, employees of penal and correctional institutions, Customs and Revenue officers, and Immigration and Immigration-patrol inspectors, if the failure of the statute to mention the Food and Drug inspectors means anything, it would have been all right to get rough with Roswell Jenkins.

Neither the truckers nor yet the shippers and growers back of them are always distinguished by a sense of responsibility toward their customers. Quite typical was a man cited for prosecution by the St. Louis station. He explained glibly that the Government ought not to do anything to him because his apples had been wiped; he thought they were all right; well, perhaps it wasn't his fruit that was sampled, for the trucker had got only part of his load from him, making up the rest of it in another orchard; he had understood that the apples were not to be taken out of the State, but were to be sold "down in the cotton country"; anyway, "I was not informed that the U. S. was guarding the interstate line."

The attitude of this individual is not wholly out of harmony with that of the International Apple Association—the most comprehensive of the trade organizations in this industry. Until the world tolerance of 1/100 grain of arsenic per pound of fruit was established (and their export trade was, to that extent, insured) this group co-operated very nicely indeed with the Government. Since then, however, their policy has been one of unadulterated, if misbranded, obstructionism. To say, as did

their spokesman, Mr. Samuel Fraser, at the 1935 Senate hearing on the Copeland Food and Drug Bill that "We have no tolerance in law today but the industry established one" is something which would be described in the vernacular of his native Cheshire as bounce.

It is true, as we have seen, that under the Wiley Food and Drugs Act the Secretary of Agriculture has no authority to set a tolerance that will be valid in all cases—the only effective way of protecting the public. If the International Apple Association can prevent it, he never will get such power! Mr. Fraser is frank to say that the interests he represents believe that the Government should be obliged to go to court over every questionable shipment and prove not only that the produce in each case carries a dangerous amount of poison, but also what amount is dangerous—the same old three-ring circus, with the Government putting its parade of scientific experts through their paces in order that the shippers of poisonous fruits and vegetables may have their "day in court."

And he "thinks" that from a court of review, which he advocates, "it might be possible to secure a ruling for a tolerance twice that which we now have."

The testimony of this engaging, if not particularly public-spirited, gentleman is important because of the authority with which he speaks for the industry. The International Apple Association (of which he is assistant secretary) is affiliated with several other trade organizations, not the least among them being the National League of Commission Merchants of the United States, the National Fruit and Vegetable Exchange, and the Western Fruit Jobbers Association of America. The combined membership takes in about 24,000 people. These groups work together on matters of interest to themselves, and contribute funds to support the fight against spray-residue regulation. The association and Mr. Fraser personally also represent on occasion the various co-operative and traffic associations throughout the country. Thus the opposition which they voice to legal tolerances may fairly be said to echo the feeling of the

industry as a whole toward governmental control of this menacing health problem.

Mr. Raymond G. Phillips, the lawyer-secretary of the International Apple Association, usually remains quietly in the background—at the headquarters in Rochester, New York. But the picturesque gray, burly figure of Samuel Fraser, with his trailing walrus mustache and heavily laden brief case, is a familiar sight on The Hill in Washington as he trudges up and down the corridors of the Capitol or in and out of the Office Buildings. Formerly in charge of some of the famous Wadsworth orchards in Geneseo, he now refers to himself as “just an errand boy” for the association. What his mysterious errand may be he never divulges to outsiders. But it is a safe wager that he is not trying to further any legislation proposed in the interests of consumers.

CHAPTER TEN

Your Peck of Dirt

COMMON foods are sometimes produced under sanitary conditions that beggar description. Even when processing removes any immediate health menace, there remains a background of filth to make the product repulsive to self-respecting consumers. Jurisdiction of the Federal Food and Drugs Act does not begin until the finished article enters interstate commerce, and then evidence of the use of filthy, putrid or decomposed materials—specifically forbidden by the law—must be based primarily on the examination of samples taken from actual interstate shipments. This feature of the law makes it virtually impossible to control certain types of offenses against health and decency.

Time and again enforcement officials have known that the cream used to make suspected lots of butter had been so carelessly handled that the finished product must be contaminated; yet the butter, thanks to the use of filters and other technic in the creamery, retained no traces of filth or decomposition that could be demonstrated by the methods available. Strongly as Dr. Wiley felt about butter, and he was a crank about it, only one of the 26 actions against this product during the five years he had charge of enforcing the Pure Food Law involved the use of unwholesome material; and of the 116 butter cases in the succeeding decade, only 16 were consummated on this charge. The others all had to do with economic cheats, such as short weight, too much moisture or not enough fat. Enactment in 1923 of the legal standard for butter made it possible thereafter to prosecute the latter violations with greater hope of

success, and the number of such cases annually increased by the hundreds.

Offenses against decency, however, continued for many years to resist control. The best method of making objective examinations of butter was microscopic analysis, which meant dissolving out the butter oil so that any foreign matter could be studied and identified. This was not wholly successful. The casein, a natural constituent of butter, was not affected by the usual organic solvents, and remaining on the filter pad obscured the view of any filth. Chemists worked for years to find some way of getting rid of it without dissolving the extraneous matter at the same time. Not until 1933 was an effective method developed. Then Walter S. Greene, a young analyst in Dr. Burton J. Howard's world-famous Microanalytical Laboratory of the Food and Drug Administration, found that by treating the butter with a hot solution of borax he could melt away the casein; if unfit cream had been used, or if the butter itself had been contaminated, unmistakable evidence in the way of mold, insect and animal debris and miscellaneous trash would show up clearly on the filter pad.

Examination of only a few samples by this new method was enough to fill regulatory officials with dismay and incredulity. Butter that looked perfectly clean and wholesome to the naked eye disclosed a history of filth leading all the way back to the farm. Hay; fragments of chicken feathers; maggots; clumps of mold—blue, green, white and black; grasshoppers; straw chaff; beetles; cow, dog, cat and rodent hairs; moths; grass and other vegetable matter; cockroaches; dust; ants; fly legs; broken fly wings; metallic filings; remains of rats, mice and other animals were revealed to the astonished eye—all impregnated with yellow dye from the butter. (The standard permits the use of artificial color.) In a single pound of packing-stock butter consigned to a candy factory, so many maggots were found that if they had been placed end to end their length would have approximated eleven feet, nine inches.

It was no surprise to officials to learn that most packing-stock butter was teeming with filth in view of the way the product

was handled. All too often the farmer has sold as packing stock a mess he would under no consideration use on his own table, swapping it for calico, shoes, groceries and other supplies. In Georgia, for instance, the mountain people rarely use butter themselves, but sell what they make to the country store for five cents a pound, and then buy cottonseed-oil compounds at a higher price for their own consumption. The storekeeper holds it until he has accumulated enough from various sources to ship to a dealer in packing stock; a concern manufacturing candy, crackers or similar products; or a renovating plant. While it is standing around the store—often in open barrels or old lard tins—it may be exposed to rats, mice, flies and every other sort of contamination imaginable.

Dealers in packing stock make what they call "ladle butter" out of it. That is, they heat it until it is pasty, spread it out and remove the visible filth. There seems to be a persistent demand for this type of product on the part of some bakeries. Apparently processed butter, which might be at least a little cleaner, is not a satisfactory substitute, for if they cannot get packing stock they use low-score creamery butter or oleomargarine.

When packing stock is merely off-odor, but otherwise clean and wholesome (a fact it was not always possible to determine before the Greene method was worked out), it is legally suitable for renovating purposes. There is a special law regulating the manufacture and sale of renovated butter and oleomargarine. It does not specify what kind of butter may be processed, but it has usually been interpreted as applying to that which through age or chemical changes has developed an unpleasant odor. Such changes in the protein cause butter to become putrid; in the fat, to become rancid. While the offensive odors may be dispelled by aeration, the idea of renovating such butter is none the less abominable. In the process the butter is melted and allowed to stand until the salt, casein and milk serum have run off. Then, after air has been blown through it to carry off the odors, it is emulsified with skim milk and passed through

ice water, which causes it to assume a form very much like that of churned butter.

Butter which has been seized under the Food and Drugs Act is sometimes released for renovating at the discretion of the courts. Enforcement officials cordially dislike the idea, but their opinion is not always asked, nor necessarily followed when it is given. They are especially opposed to the processing of butter so filthy that it could not decently be used before renovation, and when various large creamery interests have sought to have packing stock that was full of maggots released for renovating, the Administration has been prepared to show that the body fats and fluids of the contaminating insects may be carried over into the finished product. If the truth were known, these officials would probably like to see the renovated-butter law stricken from the statute books; but so long as it remains, they are obliged to recognize its authority.

The manufacturer of renovated butter or oleomargarine is required to be licensed by the Bureau of Internal Revenue, and to use prescribed labels and containers. Five plants are under license at the present time to make renovated butter. The Bureau of Dairy Industry is responsible for the sanitary inspection of these factories. This, by the way, is the only strictly regulatory activity of this bureau.

The Oleomargarine and Renovated Butter Law owes its enactment to the commercial creamery interests. In view of their own freedom of operation it will be worthwhile to examine the restrictions they have succeeded in imposing on the maker of oleomargarine. To begin with, he must pay a license fee of a quarter of a cent a pound on the white product and ten cents a pound on the colored, as well as a commodity tax; and he must put up a bond of \$5,000 or more, depending on the size of his business, not to mention the additional taxes imposed by some States. Even the proprietor of a boarding house who colors the stuff to serve her employees or paying guests may find herself liable as a manufacturer to fines and taxes. Retailers are required to pay \$6 a year for a permit to sell the white and \$48 to sell both, while wholesalers are taxed \$200 for the one and

\$480 for both. The manufacture of oleomargarine from animal fat is supervised by the Bureau of Animal Industry, which is able under the Meat Inspection Act to prescribe a standard of not less than 80 per cent. fat. The Food and Drug Administration has a similar administrative standard for vegetable margarines. These are usually labeled as of vegetable origin to appeal to vegetarians. Because of the high tax on cocoanut oil—for which the dairy industry claims credit—they are now usually made of cottonseed oil, and to the annoyance of the creamery people exploited as “domestic.”

In spite of all these taxes and penalties, the low price of oleomargarine as compared with butter offers perennial temptation to the unscrupulous; but not often, in recent years anyway, has the dream of illicit profits from this source materialized on such a grand scale as the \$1,500,000 fake butter racket brought to light in 1934, when Inspector Cyril Sullivan picked up some samples of *Country Roll Butter* in the possession of Swift & Company of Hartford. This story is worth telling if for no other reason than that so much sympathy has been bestowed on the “obscure foreigner” who went to jail, while Swift & Company suffered only the confiscation of their “butter.” Swift, it seems, had been shopping around for cheap butter, and had purchased the fake product in all good faith (so they claimed) from a firm in Boston, which, it transpired, had bought it from another firm, which had got it from a bootlegger. This worthy confessed that he had been instructed in the art of coloring white margarine by a Syrian in New York, one Albert Haddad, who furnished the supplies. Haddad was well-known to Revenue agents and Food and Drug inspectors as an old hand at the racket. Haled into court in 1928 for buttering New York with 150,000 pounds of illegally colored oleomargarine, he was at that time sentenced to eighteen months in Atlanta and fined \$5,000. The expressed hope of the court that so drastic a punishment might make him mend his ways was disappointed. Hardly had he had time to serve out his sentence before he was caught again. Another jail penalty in 1932 likewise failed to put him off his bias, and by the time Inspector Sullivan

turned the spotlight on him a few months afterwards, he had three different gangs bootlegging his stuff in New England. Thanks to the first-class sleuthing of Inspectors Sullivan and McKay McKinnon of the Food and Drugs Administration and Morris Kreuger of the Revenue-rs, all working with various State and local authorities, the twenty-odd individuals and firms engaged in the racket were all rounded up and summarily dealt with for *conspiring to violate Federal laws*—a far more serious offense than breaking the Pure Food Law, and one carrying much heavier penalties.

One of Haddad's distributing agencies in Boston was the Fellsway Cheese Company, which disposed of more than 250,000 pounds of the fake butter in two or three months. Successful as this gang was with oleomargarine, it had still other interests, as Government agents found out, for a raid on the plant yielded not only "butter," but guns, bombs and counterfeit money! Those of the gang who escaped going to jail for participating in the oleo racket were not long getting into trouble with a new kind of "Italian cream cheese," invented by themselves and composed of skim-milk powder and mineral oil, the oil being a laxative with no food value whatever. Again they were violating, in addition to the Pure Food Law, a statute fostered by the creamery lobby—this time the Filled Cheese Act, which forbids the addition of any fat, even butter, to the milk used in making cheese.

While oleomargarine was causing all this excitement for Albert Haddad and his friends around Boston, Swift & Company were having troubles of their own with real butter. For the Food and Drug Administration, on the basis of filth revealed by the new Greene method, was seizing thousands upon thousands of pounds of creamery butter all over the country. And more than 17,000 pounds of it, every ounce of which was destroyed, bore Swift & Company's imprint!

In the course of the campaign against packing-stock butter, consignments of creamery butter had been encountered which showed definite evidence of similar contamination, the filth varying only in degree. Butter scoring 92 points was just as

dirty as that scoring only 88. Of several samples picked up in Chicago the one with the most filth had been officially scored 92½ on the Chicago Board the day before. The seizure of car after car of such butter, with a loss on each of about \$5,000, brought representatives of the American Association of Creamery Butter Manufacturers to Washington on a run. One look, figuratively speaking, through Mr. Greene's microscope was sufficient to persuade them that another of their perennial clean-up drives was in order. Officials made it clear to them, however, that it would not be enough for the creameries to perfect straining methods for removing filth from their cream: They must not buy objectionable cream in the first place.

Realizing what could now be proved against their products (at least until they found a means of circumventing the Greene method), the leaders of this all-powerful trade association, which includes Swift, Armour and other overlords of the industry in its membership, set to work to organize a nationwide Cream Quality Improvement Campaign. Forty-three States were divided into districts, ranging from eight in Georgia to thirty-eight in Wisconsin and nearly seventy in Minnesota, with more than five hundred local committees. Plans were made, with the co-operation of the Federal Bureau of Dairy Industry, State dairy bureaus, the United States Extension Service, and various local groups, to educate some four or five million farmers to produce better cream.

While the association was busy with its schoolhouse meetings, trade bulletins and posters, the Food and Drug Administration continued to seize all the filthy butter inspectors could lay their hands on.

More than a hundred seizures of packing stock all but destroyed the market for that type of product. Dealers warned their shippers to send the stuff at their own risk, and express companies refused to accept it unless the charges were prepaid; the largest dealer in New York dismantled his place of business; officials of the Bureau of Dairy Industry reported happily that the quality of the butter coming in to the renovating plants was the best they had seen in years; and farmers were

rumored to be making so much better butter that they were eating it themselves.

With butter fairly well cleaned up for the time being, officials next turned their attention to cream. The industry was warned that the Federal Government would seize all cream filthy enough for a discriminating, unbiased person to object to it; all cream containing mold on the surface or having a sufficiently cheesy flavor to indicate the presence of mold; all cream in which rats or mice had been drowned; all cream so yeasty as to boil over and run down the side of the can; and all cream without question putrid, rancid or otherwise decomposed or objectionable. No tolerances were set, lest the usual chislers give their cream only just enough care to get by. Of course a good deal of the cream that is made into butter never crosses a State line, so that it does not come within the jurisdiction of Federal authorities. But the Food and Drug Administration has a Division of State Co-operation for co-ordinating the work of Federal, State and city officials, and when local agencies are not too much snarled up in local politics, the combination can accomplish wonders.

To the shrill cries of the newsboys—“*Read all about the death of Mickey Mouse!*”—flying squads of Federal and State inspectors proceeded forthwith to dump ten thousand dollars' worth of ratty cream into the sewers of Louisville, Kentucky. Speeding by plane to Indianapolis—to Cincinnati—to other creamery centers in eighteen different States, they examined 1,600,000 gallons of cream in about three months; found 4 per cent. of it actionable.

Because of the limited force—the annual appropriation providing only 78 Federal inspectors to protect the entire food and drug supply of 120,000,000 people—these young men were often obliged to work eighteen or more hours a day. As one of them wrote:

“We usually have to spend a full twenty-four hours at a creamery. Otherwise, trucks are kept on the outskirts until we leave in order not to have any of their cream seized.”

A good deal of lifting was required, but that was not the worst of it. Nearly every can had to be tasted, and the inspectors did it—voluntarily—though they knew they were exposing themselves to septic sore throat, dysentery, diphtheria, typhoid, intestinal tuberculosis or undulant fever, for none of the cream was pasteurized. They were repeatedly forbidden to do it; but they knew that the only way to detect cream that rats have been drowned in or pulled out of is by the unmistakable taste. They had a job to do, and they forced themselves to learn that taste by using a can with a rat in it. But it was sheer will power that enabled them to push the rat aside with a grading rod and sample the cream. As a result of that experience, however, hundreds of thousands of gallons of ratty cream have been prevented from reaching consumers.

Even if there had been no creamery surveys before, inspectors would have known what to expect from the instructions sent out by the industry as part of the Cream Quality Improvement drive to the operator of the local cream station. This individual was warned that his station must be ready for inspection by anybody at any time. It must be painted inside and out if necessary. (The owner of the building should be willing to stand this expense.) He must taste and grade each delivery "from now on" in order to know what kind of cream he was buying. For tasting, the company would furnish him with a grading rod, so that he would stop dipping his fingers in the cream. He must install cooling arrangements and washers, and take care of his cans. He must not buy third-grade cream. He must segregate the first and second grades:

"As he becomes more educated in differentiating between first and second grade cream, this will not prove a difficult task."

Apparently, a good many operators were not aware that cream as it is received at most creameries is separated into grades. In some States such grading is compulsory. The basis for each classification would seem to be the opinion of the grader as to the score of the butter which can be made from it, disre-

garding the evidence of sight and smell. Little, if any, attention is paid to the nauseating odors from decomposition, which are often tasteless and sufficiently volatile to be lost during pasteurization. While Food and Drug inspectors, according to the secretary of the Ohio Dairy Products Association recognize "just two grades—good and bad," the creameries, theoretically, use four grades: Sweet cream for making sweet butter, which is in a class by itself; Grade One which will produce a butter scoring 90 points or better; Grade Two, which will make butter scoring 88 points or better; and Grade Three, which is supposed to be illegal in most States, and is certainly unfit to use in any. The creameries deny that they ever buy any Grade Three cream, but the distinction is academic. Often they too employ only two grades—(1) fair, and (2) anything else they can get away with.

By using neutralizers and—if their product is not going over the State line where watchful Federal men can snatch it up—artificial butter flavors, and by manipulating it with modern machinery, filters, strainers and so on, they can make a low-grade butter out of bad cream, and the consumer, who has come to believe there is no such thing as good butter anyhow, will never know the difference. So why be so fussy?

Some of the creameries which the inspectors visited were found to be careless in respect to the water they used for washing the churned butter, for it was either not properly filtered or else was exposed to contamination in open tanks. Some were found to be operating in plants without adequate ventilation or sewage facilities, and condensed steam would be dripping from dirty ceilings and walls into vats, forewarmers, pasteurizers, churns, and tubs and boxes containing cream or butter. Others were using salt contaminated with dust, dirt and other foreign matter from being left around in open containers. In several of the smaller creameries the piping, pumps and other apparatus were indifferently cared for; in some, indeed, the piping was not removable and could not be cleaned. (All of these creameries were in the East.)

The manager of a Western creamery told the inspectors he

was always glad to have visitors because he had such a nice, clean plant—they hadn't seen anything wrong around his place, had they? Did he really want to know? He said he did. Well, they told him, the cream separator he used on his starter looked as if it hadn't been washed, inside or out, for weeks, and there was hardly a spot on it that was not covered with mold. The sanitary piping was filled with rancid grease and other debris, and was also filthy on the outside. The steamer bowl and spout were smeared inside and out with putrid, discolored, moldy cream. The can under the spout was three fourths full of rotten cream steamings. The surface of the can of water and cream in which the stirring rods were standing was covered with black mold. The walls, windows, vats and floors were filthy. The face of the recording thermometer was so dirty you couldn't read it. And, finally, the ground at the edge of the receiving platform, where gallons of buttermilk were continually spilled, not only emitted a frightful stench, but afforded a breeding place for millions of flies.

One creamery operated by a woman (this was in the Northwest) was exceptionally dirty. The dump vat was smeared for a depth of about twelve inches from the top with dried, moldy cream, which was turning brown. An old canvas-covered hose, badly worn and saturated with mold and rancid cream, was inserted for about five feet of its length into this vat so that the cream could be pumped out. It was attached in such a way that it could be removed only with great difficulty and obviously was seldom cleaned.

A creamery in the South, which had made an unpleasant impression on the inspectors when they first saw it in 1934, was visited again a year later:

"This creamery had done some rebuilding in the last year, giving them more space to accumulate litter for mice and roaches to hide beneath. Old, wet, soggy paper cartons and boxes, tubs, boards, bags, old iron, piping, junked equipment, a few bags of beans, barrels and rubbish of all sorts lay around, in some parts accumulated to a height of five or six feet. The churn had a foul odor. The buttermaker said he had intended

to wash it out several days before. The trough over the cooling coils was unwashed and contained rancid cream. A new filtering system had been installed. The valves in the piping, which had not been taken down, contained large amounts of bright green, evil-smelling cream: One vat of cheesy cream which had been accumulating for twenty-four hours had brine coils in it, but no brine had been turned on. The cream was fermenting and decomposing on their hands.

"The cooler was the worst sight I have ever seen in my life. Here again soggy paper boxes had been placed on the floor, which was covered with water about one-half inch deep. Old tin cans, partially filled with spoiled and moldy ice cream syrups, were strewn about the floor. The roof and walls had rotted, allowing pyramids of cork insulation, a foot in height, to form about the room. Hunks of ice were mixed among the debris, which included old ice cream cans, pieces of salt pork on boxes, and about 200 pounds of butter in uncovered boxes piled one upon another, with artificial strawberry ice cream color spilled over the top of one, and muddy water dripping over the others.

"There was absolutely no excuse for these conditions, for beside the buttermaker there was his assistant, who was a college-trained man from the State dairy school, and three negro employees, all with little or nothing to do."

A creamery in the Southwest smelled so badly that the manager confessed he could hardly stand it himself; indeed, when the cans were being steamed, he had to get out of his office on the second floor.

He told the inspectors about an experience he had had a few months before. He opened a can of cream, he said, that had so many maggots swimming and crawling around in it that he called the farmer back from the street and told him to take it away. The farmer was very much put out about it: If he had known there was going to be so much fuss about a few worms, he would have strained his cream before he brought it in. Couldn't the creamery use it anyway—at a lower price? The manager asked him how he would like to eat butter made from it. Oh, he didn't eat creamery butter! None of the farmers

around there ate creamery butter, the manager said. "They're too smart. They eat oleo."

Another operator told of finding rats in his cream so bloated that in order to get them out of the cans he had to puncture them. He didn't say what he did with the cream.

A number of operators confessed that for themselves and their friends they made sweet butter. Even those who were speaking at the schoolhouse meetings, telling the farmers what losses would accrue to them and the creamery if they did not take better care of their cream and keep their cans covered, did not bother to protect the cream in their own care. One man who sent out quantities of letters and posters in the Cream Quality Improvement Campaign packed poultry in the room next to that in which his butter and cream were standing, with the doors wide open between. Those who had screens sometimes chained them back out of the way. In one creamery, only the manager's office was screened. It was not at all uncommon for the inspectors to find a can of cream with rats, mice or flies in it standing under a Quality Improvement poster. In at least two creameries belonging to one of the largest buttermakers in the country, one who took a particularly active part in the clean-up drive, the cream cans were returned to the farmers without washing. Those the inspectors saw had lumps of curd clinging to the sides, and a vile odor coming from them. They asked the operator whether he thought it did any good to preach to the farmers about taking care of their cream when they got their cans back in that condition. "He made no reply."

When an inspector saw a farmer coming out of another creamery "with a broad grin on his face," he

" . . . ran into the cream receiving room and found about five gallons of the most evil-smelling cream you could imagine. Of course, a brand-new poster from the State food and drug department, warning that it was against the law to purchase cream 'with a bad odor' was in plain sight. The defense of the buyer was that it tasted all right. The manager was perturbed, especially as he had told us the day before how much he was do-

ing for improvement. As far as I could observe, this meant the addition of many layers of cheese cloth filters."

Cream gets from the farm to the creamery in various ways, but chiefly through direct shipping, cream routes or cream-buying stations. One national organization of creameries makes a special point of getting most of its cream direct from the farm. This in many cases is objectionable, as the farmer may save his cream for several weeks, or even a month, until he has a full can, in order to take every advantage of transportation rates. When a farm produces a large volume of cream, this method of marketing it may be a good practice.

Cream routes are used by those who produce sweet-cream butter in fairly large quantities—though such creameries may also have sweet milk delivered directly, separating it themselves. Trucks loaded with empty cans travel regular routes, gathering cream from the farms along the way and pouring many small lots of it into a single large can. Sometimes the trucks are equipped with means to cool the cream, either with ice, tarpaulins or, in some cases, insulated containers.

The large national creamery organizations, as well as many small creameries and independent cream buyers (who peddle anything they can get to anyone who will pay for it), maintain local stations for the purpose of buying cream from neighboring farmers. These stations may be located in garages, feed stores, produce houses, butcher shops, blacksmith shops, private houses or even shacks. Often they are operated as a sideline. Equipment is likely to be crude, and many have no running water. When the farmer delivers his cream, it is weighed and the butterfat determined; the cream is poured into a company can, often along with somebody else's—good with bad, stale with fresh; and his can is given a perfunctory washing and returned to him. The station may hold its cream for as much as a week before shipping it by truck or train to the creamery. As the cream buyer usually works on commission, being paid so much a pound for the butterfat he takes in, it is to his interest to buy as much as possible. He is therefore likely to accept any-

thing that comes in rather than let it go to his competitors in the same territory. And he shows no greater sense of responsibility in taking care of his cream that he does in buying and grading it. Some cream stations are so filthy dirty that the best cream in the world would be contaminated by the time it left them to go to the creamery.

But let an eye witness tell you what he saw—what, indeed, any passerby might have seen—in a station operated by Armour:

“The place was formerly a store, with two large plate glass windows arranged for display purposes by having window plat-forms, each being about five feet deep, two feet above the floor level, and about eight feet long. In one could be seen an old pie tin filled with poisoned hamburg and dead flies. Near the tin was a very discolored cat, probably at one time somewhat white. In the other window were several more quarts of dead flies, a pile of old dusty newspapers and cheap magazines. On one side of the door, three or four hundred-pound bags of seeds lay on the floor. It was stated they had been there some months. This statement was accepted without question as about $\frac{1}{4}$ of each bag had spilled out on the floor through holes chewed by rats. Intermingled with the seeds were many hundred pellets of rat excreta. Near the first window, where the cat reclined, stood several cream cans, the lids nearly filled with dead flies. To one can a dirty wire-haired terrier was fastened with enough chain to allow him to reach an old broken-down leather sofa which served as his bed, if not that of his master.

“More cans of cream were further back in the room near an old motor truck that had been driven in by the back door. Within three feet of these cans was a pile of salt cowhides about a foot high, liberating the expected odor.

“Dead and living flies were everywhere. The floor had probably never been swept out. The cobwebs, dirty windows, walls and ceilings, with a dim light shining through a dirty bulb, all added to the effect of being in a place unearthly.”

Examination of the cream at stations everywhere—North, East, South and West—yielded some strange and wonderful prizes. Flies and their maggots were the most common find; but mice, rats, cats and chickens in various stages of decomposi-

tion were by no means rare. One Blue Valley station (in this instance you'll have to take the operator's word for it) contributed an eighteen-inch bullfrog. In other creameries there were recovered on the filters through which the cream was poured a snail, tomato seeds, oilcloth, ants, corn, dishrags, a suit of men's winter underwear, animal hairs of various kinds, coal, pieces of rubber, toads, cucumber seeds, "a cat wrapped in a pair of ladies' silk bloomers or pants," olives, spiders, cellophane, oats, pine needles, beans, chinaware, roaches, straw, spoons, a sheepskin coat, a coiled spring four inches in length, catfish, gravel, glass, potatoes, a small pair of milk scales, pieces of pork rib, a rat done up in a Turkish towel, and much unidentified material.

Much of this "extraneous matter," as the creameries call it, gets into the cream while it is still on the farm. Unlike the farms which contribute fluid milk for city consumption, those producing the milk and cream that go to creameries, cheese factories and evaporated-milk plants are practically never subject to any sort of sanitary inspection. Dairying is only a sideline on most of them, and the quantity of cream produced each day is small—so small, indeed, that the farmer may not think it worthwhile to take less than three or four weeks' production to town at a time. One old fellow the inspectors heard about in Texas kept his cream from the fall of 1933 until the following spring, then coming into town—a distance of twenty-five miles—with some thirty or forty cans from a few cows. The odor was such as to make his visit a memorable event in the town's history. Of course, that was an extreme case. But, for all we know, his cream was made into butter!

Farmers whose barns are in such condition that they cannot get a permit to sell milk may be solicited by itinerant cream buyers, who sell the swill they collect to cream stations or creameries. To get it, they hunt out the poorest and most backward farms, small homesteads, squalid and filthy. One such buyer told of being invited to dinner by one of his patrons; when he saw a big sow saunter out of the house, he gave up any idea of accepting. The inspectors themselves have visited

homes where hens and turkeys had the run of the house, with cows grazing at the very doorstep, and manure piled high a few feet away.

Such conditions, the inspectors report, are not always due to poverty. One prosperous "local potentate," as they described him, had fifteen to eighteen cows, four horses, three or four dozen hens, a calf pen, milk pails, a separator, cans of cream and heaps of manure all jumbled together in a one-room barn, with windows so dirty that it was dark at midday. The milk pails, cans and other equipment were all plastered with manure, as was also the proprietor himself.

From Missouri, an inspector wrote:

"I would have given anything I own to have had a movie camera with me today. I saw a great big fat woman in a filthy black dress. She herself was very dirty, her hair hanging down her shoulders, no shoes, and her feet very black. She was emptying an old kettle containing sour cream into a cream can. The cream was kept in a filthy old woodshed, with all sorts of junk, from old rags and cans to pieces of machinery and wood. The cream was uncovered and had flies, dust and hair on it, in addition to some mold. The most nauseating part was to see her scrape out the sides of the kettle with her dirty hand and slip it into the cream can.

"They all have the attitude that they aren't going to eat any of it, so anything goes."

Another woman kept her cream under a bed in which, apparently, the whole family slept. Still another had her cream on top of an incubator; said she'd never thought of covering it. A man who kept his in the cellar put a cover on it—to keep out the green frogs! The cellar was infested with them, he said, and they would jump in the cream at the first opportunity. Danged hard to get 'em out—they're so slippery! One farmer who had his cans standing out in the yard under a broiling sun agreed he could put them in the cellar if he wanted to, but why go to the trouble of carrying them down when he would get the same price for his cream whether it was rotten or sweet?

Anything served as containers on some farms—kettles, crocks,

Karo cans, slop jars, oyster buckets, pans, lard tins—few if any of them covered.

At the height of the cream-seizure panic in 1934, an Arkansas creamery wrote to its patrons:

“We do not want to alarm or discourage you in any way, for we need all the cream you will produce and more, too, but . . . if you sell cream you will have to produce it clean, and keep it and deliver it in clean, bright and smooth-surfaced containers and protect it from the hot sun, dust, dirt and other foreign matter, with sacks or blanket, preferably wet when delivering it.

“We might say here that we think the use of the common syrup bucket will be doomed under the new regulations, as they are very unsanitary to keep and deliver cream in, and we ask you to please discontinue the use of them as soon as possible.

“Please do not ignore this letter for we have found that the Federal Food and Drug Administration does not stutter or blunder in anything they say or do . . . we think that this is only the best for all of us in the long run.”

It would seem a simple matter for the cream buyer in every case to notify the farmer that bad cream will not be acceptable; that if it is offered, it will be returned to him. Yet the inspectors have encountered case after case where, when cream has been seized and destroyed, the creamery operator has paid for it rather than risk the farmer's selling his output, good or bad, to somebody else.

Even Mr. W. F. Jensen, secretary-manager of the American Association of Creamery Butter Manufacturers, in a service bulletin issued in October, 1934, conceded that there was

“. . . something funny about members of an industry quarreling among themselves for the privilege of buying something below legal standards and subject to confiscation . . . afraid that if they tightened up on grades the farmer would stop producing cream.”

As an excuse for this incredible state of affairs, butter makers plead the necessity for volume. Their margin of profit is so

slight, they say, that they have to have volume to make any money. In consequence, there has been built up during the last thirty-five years an almost hysterical competition in the purchase of butter fat, competition so ruthless as to make any hope of quality improvement seem futile under the present system of control. The individual who tries to better conditions is licked before he starts by the policy of local discrimination practiced by Swift, Armour and other concerns with a nation-wide set-up. These octopi, by offering a premium above the market price, readily get the local man's patrons away from him—making up for their generosity, however, by paying less than the market justifies in localities where competition is not so keen. Then they turn around and steal his butter customers by under-selling him! In other words, they march him up the hill, and they march him down again. If he tries to get the farmers to take better care of their cream, he is told that his rivals give them better weights and butter-fat tests, regardless of the cream's condition. Should he attempt to answer this argument by paying a differential for quality, he soon finds his price bettered again.

But every now and then some community attempts to clean up anyway. In Missouri a few years ago, local creameries with the help of the State university put on an intensive educational campaign. Weekly meetings were held, with the usual accompaniment of pamphlets, posters and so on. The program called for the delivery of cream every day during the summer months and every other day during the cold weather. This resulted, naturally, in a better product. And the farmers were enthusiastic, because it raised the basic price of their butter fat approximately six cents a pound. (Half of this, however, went to the truckmen for hauling.) But before long resistance to the program asserted itself. Various nationally entrenched organizations which had formerly given their station operators a specified commission now adopted the policy of a delivered price to the creamery. Thus their local representatives were enabled to meet the price paid for sweet cream on the routes, and in many instances to

pay more than the route price for sour or spoiled cream. And that was the end of that clean-up campaign!

Just as the creamery-butter manufacturers fight to buy cream they know may make their product subject to seizure and themselves subject to prosecution, so too they struggle to turn out as large a volume as possible, regardless of quality, even though they are frightened of a surplus. They have reason to be frightened. Despite the drop in butter prices, the consumption of oleomargarine during the first half of 1935 was double that of the corresponding period in 1934. Instead of plotting further legislative reprisals against the margarine makers, as the trade papers hint they are doing, the creamerymen might better give some thought to what consumers regard as the obvious solution of their problem. The industry admits that with proper sanitary care, beginning at the farm, 80 to 85 per cent. of the butter produced in the United States would score at least one whole point higher in quality. Surely such an improvement would be as conducive to greater consumption of butter as would increased imposts on margarine! Indeed, you might have gathered that the industry thought so, if you had heard Official Spokesman Jensen telling the 1934 convention of State Dairy, Food and Drugs Officials that

"We have about decided that better cream should be encouraged by being bought on grade and with a differential in price so as to encourage care on the farm. . . ."

But a few months later it happened that the Agricultural Adjustment Administration proposed to set up under the marketing agreements five grades of cream based on five grades of butter, ranging from 93-point score to 88-point score, with the butter package labeled accordingly—AA, A, B, C or D. Strange to say, Mr. Jensen's associates did not like the idea, and at hearings held in Salt Lake City he entered a noteworthy protest in their behalf:

"Into this question of quality enters that of economy in the cost of delivery, especially where the small cream producer is

concerned; who, if he were compelled to bring in his cream three to four times a week might better quit. No doubt thousands of such producers would quit. . . . Ninety-score creamery butter, commonly called Standards, has, during the past two years, averaged on the market within 0.35 cents of the so-called Extras or 92-score butter. This is not a great enough difference in market value to justify the farmer in coming to market with his cream more frequently, nor does it warrant penalizing the butter made from such cream by lettering it B or otherwise marking it to indicate that it is in any way inferior. . . . Indeed, 60 per cent of all creamery butter made in the United States is 90 score or Standards, and the proponents of the marketing agreement have no doubt failed to realize that. Thus they have failed to establish a motive, a financial reason for a reform (or whatever it might be called), which, if accepted and later generally applied throughout the United States, would vitally affect nearly three million cream producers marketing their cream for this class of butter, or, in other words, nearly three-fourths of all cream producers in the United States."

The new filters which the creameries installed during the Cream Quality Improvement Campaign have been remarkably successful in eliminating from the finished product practically all evidence of the use of filthy, putrid or decomposed cream that might get the creameryman or his butter into court on charges of violating the Food and Drugs Act. In other words, cream in which rats have been drowned is again safe for the manufacturer to use in making butter since incriminating hairs and other debris no longer come within range of Mr. Greene's microscope. The only indication of undesirable dairy practices remaining in the butter is mold, and that the creamerymen dismiss as of no consequence. Mold, they say, is a natural concomitant of dairy products, and not at all objectionable. So why harass the farmer about the care he gives his cream or the length of time he keeps it? To be sure, the creameries with this point of view overlook a significant bit of evidence on their own receiving platforms—namely, the fact that when they grade cream, as they do, on other counts, the best quality contains

no mold, while the lower grades are always moldy in proportion to their inferiority.

But be that as it may, enforcement officials insist that the consumer is entitled to protection against conditions to which he would object if he knew about them, and this position has been upheld by the courts. The point came up only a year or two ago in a case involving tullibeys imported from Canada, a large proportion of which were infested with worms imbedded in the flesh. The thread-like parasites, difficult to detect by themselves, were surrounded by a thick, greenish-yellow fluid unpleasantly suggestive of pus, and consisting of broken-down fish tissue and worm excreta. The fluid would be noticeable to anyone eating the fish, but unless he knew what it was, he might not object to it. Indeed, a witness for the defense testified that he did not mind it, and proceeded forthwith to devour one of the fish for the edification of the court. But Judge Coleman * was not impressed. That didn't prove anything, he said, except that the witness was willing to eat fish with worms in them.

"The fact that most consumers would not discover the worms and would therefore not have their feelings affronted is of no consequence, because were it otherwise, the statute would not be needed. The statute is largely intended to protect those consumers who would not be in a position to observe the defect in the food."

But if the Greene method of analysis may no longer be depended on to demonstrate objectionable conditions in the manufacture of butter, how can consumers be protected against an esthetically offensive product?

According to those who are most familiar with the problem, the answer is Federal inspection similar to that which already obtains in the meat and seafood industries. The first draft of the Copeland Bill carried two sections which would have provided such control. One authorized the Secretary of Agriculture to grant voluntary inspection service to any manufacturer desiring it and willing to pay for it, and to permit the use of

* The late Frank J. Coleman of the Southern District of New York.

some mark of approval on deserving products whereby the public might know they had been produced under the right kind of sanitary conditions. The other provision, which was considerably more drastic, was to be applied only under special circumstances. Whenever the Secretary found that any foods, drugs or cosmetics in interstate commerce might, because of conditions difficult to determine after shipment, be injurious to health, he was empowered to put the producer under a license which would insure the maintenance of proper safeguards. Then, if the producer failed to live up to requirements, the Secretary could suspend his license until such time as he was willing to conform.

These provisions were incorporated in the measure largely through the urging of reputable manufacturers who wanted protection against unscrupulous competitors. There had been repeated requests for such service long before there was any likelihood of new legislation. Several years before, when an epidemic of botulism, a particularly horrible form of food poisoning, threatened to wipe out their industry, the packers of ripe olives had literally begged for Government supervision, if for no other reason than to restore public confidence. But enforcement officials, while they appreciated the crisis within the industry and the undeniable benefit to the public of such a service, were not empowered to give it.

When the Copeland Bill was under public discussion at hearings before a Senate sub-committee, Dr. Allen Freeman, professor of public health administration at Johns Hopkins University, made a special plea for this control:

"It was my privilege over a period of some fourteen years to serve as a health officer in one jurisdiction or another and to sit, so to speak at the receiving end of some of these food-poisoning episodes.

"I happened to be the responsible officer in charge of the first botulism epidemic. It was my very unfortunate function to have to preside at the funeral of the ripe olive industry. There was no cooperation whatever from the manufacturer of the particular brand of olives which caused this epidemic.

There were cases in this particular lot in half-a-dozen Ohio cities, and no one knew in how many other parts of the United States. There was only one thing to do. That was to advise the people of Ohio not to eat Curtis ripe olives. I was subsequently visited by a lawyer representing the manufacturing concern that did me the compliment of threatening to sue me for half a million dollars. There was no suit, of course. . . .

"This particular firm did not belong to the trade association, and this firm had refused to conform to the simplest requirements necessary to insure the safety of their customers. They went down, and the great industry was for a time completely destroyed. No one can serve as a health officer without being impressed with the very great necessity for the most rigid control of food products. . . .

"The organized trade association took hold of the problem and within a few years ripe olives were perfectly safe to eat and have been ever since. . . .

"Now, I am sure anyone present here who had seen the victims of that epidemic would have felt that no precaution, however burdensome it might be on that industry, would be too great to prevent a repetition of that occurrence. It was a perfectly dreadful thing. . . .

"When we confront situations like these it seems to me beyond question that the consumer has a right ahead of the profit. I have no objection to profits in the food industry. We could not have food without them, but we must consider the rights of the consumer first, last and all the time."

But the canners evidently believed they had a right to their profits ahead of the consumer. At any rate, they were not in favor of the inspection system proposed by the Copeland Bill, and Mr. Charles Coolidge Parlin of the *Ladies' Home Journal*, who did most of their talking for them, explained why. A few years ago, it seems, the Bureau of Agricultural Economics (another agency in the Department of Agriculture, but entirely separate from the Food and Drug Administration) put into operation an optional grading plan, by virtue of which a few canneries which had had inspectors in their plants during the period of the pack were entitled to label their products "U. S.

Grade A," or whatever the quality might be. A Virginia canner signed up for the service, only to find that the jobbers would not handle his goods—not that Mr. Parlin told this part of the story! The reason was that they were afraid that their private brands often inferior in quality, but advertised to the skies, might suffer in competition with those bearing the stamp of Government inspection. The big canners shared their apprehension. To meet such competition they believed they would all have to have Government inspection and—there was the rub!—grade labeling. So much pressure was brought to bear against the plan that it was killed through the medium of the Agricultural Appropriation Act for that year. Because of his outspoken opposition to appropriating any money for the plan when the appropriation bill was debated on the floor, Senator Copeland is generally regarded as its executioner. It was to his ear presumably that Mr. Parlin directed his protest at the hearing on the Copeland Bill when he objected that the voluntary inspection feature of the proposed legislation was an attempt to revive the earlier grading plan and trick the canners into grade labeling.

In addition to the canning interests, it is instructive to note from the record, the only other group to register serious objection to these much-needed provisions was the American Association of Creamery Butter Manufacturers. The burden of their complaint was that the little creameries could not afford such inspection. And, of course, Swift, Armour and the others who could did not like to take advantage of them!

Even funnier than that, though, was something that happened soon after the voluntary-inspection provision was struck out of the bill. . . .

Every season for some years the Food and Drug Administration had been seizing enormous quantities of canned shrimp, until the bankers and brokers had become extremely suspicious of the product and the market had practically disappeared. Sixty-eight more seizures during the year 1933-4 persuaded the packers that something had to be done. A dozen of them from Biloxi appealed to their representatives in Congress. By a coinci-

dence, Senator Hubert D. Stephens of Mississippi was chairman of the Committee on Interstate and Foreign Commerce, which for some months had been busily dismembering the Copeland Bill. Naturally he was familiar with the Food and Drugs Act, and it took him no time at all to get through Congress an amendment to that statute providing voluntary inspection for the seafood industry! So swiftly, indeed, was the measure enacted that the service was actually in operation in time to cover part of that season's pack. More than three hundred thousand cases of shrimp were canned under inspection, and accordingly every can bore the legend, "Production supervised by U. S. Food and Drug Administration."

It is reasonable to assume that the packers who took advantage of this service found their investment of a fraction of a cent a can a profitable investment, for every one of them renewed his application the following season, and at least half as many more signed up for the first time. Indeed, the market has shown so much improvement, with all stocks virtually exhausted, that plants which have been lying idle for years have recently opened up again. And there are rumors that Southern California is about to undertake the packing of shrimp.

Such facts as these the volume-crazy butter makers might ponder with profit.

CHAPTER ELEVEN

There's Going to Be a Law!

THE Copeland Bill was introduced in Congress June 12, 1933. Every one of its provisions was either taken over directly from Dr. Wiley's Food and Drugs Act or designed especially to meet some weakness in that law brought to light through enforcement difficulties or judicial interpretations. Such changes had been advocated by enforcement officials for twenty years, and some of them, there is reason to believe, might have been legislated into effect had not the war intervened. Another opportunity did not offer until Franklin D. Roosevelt became President. Behind that opportunity lies an interesting story.

A few days before Mr. Roosevelt was inaugurated, an Ohio man wrote to the Secretary of Agriculture to give him his views on spray residue. There was nothing unusual in that nor, indeed, in the letter itself. And the method of answering it was routine. As the letter covered a number of technical points, it was referred to the Bureau of Entomology for factual comment, and then to the Food and Drug Administration, where a reply was drafted for the Secretary's signature. The reply was based, of course, on the Secretary's administrative policy. It began this way:

"The Department shares your concern as to the possible effects on public health of the practice of spraying agricultural food crops with certain poisonous insecticides. Let me say, however, that the Department is devoting a very material proportion of its available funds and personnel to this problem in the

interest of public health and the welfare of the fruit and vegetable producing industry."

But between the time the original letter was received and the time the answer to it was sent to the Secretary's office to be signed, there was a change in Administration and, as was very soon apparent, in policy also. Back came the letter with a memorandum from the new Assistant Secretary:

"This seems to me an unnecessarily elaborate argument if our position is sound on this; I am not satisfied that any part of our argument should rest on protection to a producing industry. The law, I believe, does not contemplate this administrative discretion."

The Chief of the Food and Drug Administration put on his hat and went across the street (his own office was in a ramshackle old house on Thirteenth Street) to explain to the Assistant Secretary that while the efforts of his bureau to eliminate poisonous-spray residues were predicated solely on consumer welfare, the Department had a more extensive interest in the producers of fruits and vegetables because they were farmers. Letters emanating from the Secretary's office had therefore always reflected the attitude of the Department rather than the enforcement agency. Dr. Tugwell readily agreed that the phrase to which he had taken exception was proper under the circumstances, and signed the letter. That matter out of the way, they settled down to a heart-to-heart discussion of the problems surrounding consumer protection.

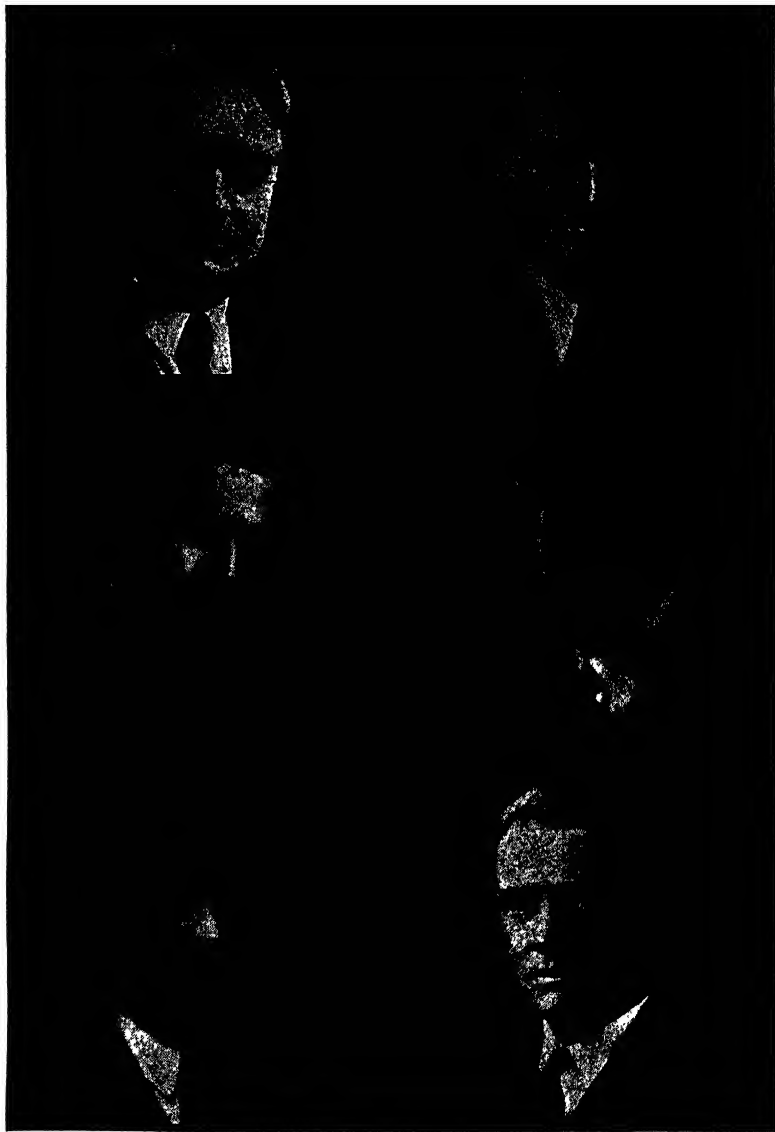
Later that day, when Mr. Campbell returned from lunch, he found a message from Dr. Tugwell asking him to come over to his office again. The Assistant Secretary is notoriously direct, and when Mr. Campbell appeared he greeted him in characteristic fashion: "Mr. Campbell, since I saw you this morning I have talked with the President. I repeated our conversation to him, and he has authorized a revision of the Food and Drugs Act."

To those who cherish the memory of Dr. Wiley's great fight, such an undertaking might at first seem almost a sacrilege. But

the fact is that the earliest and most drastic attempt to change the law was that supported by the doctor himself back in 1911-12, when President Taft asked for special legislation to control therapeutic claims for drugs. That was the time, you remember, that the Proprietary Association, with the help of Mr. Charles M. Woodruff of Parke, Davis & Company, succeeded in putting over the Sherley (fraud joker) Amendment. Dr. Wiley naturally opposed that amendment, and his good friend, Judge William Richardson of Alabama, who presided over the hearings, did not hesitate to point out what its consequences would be. The bill they advocated was one sponsored by the judge, which would have extended the law to cover cosmetics, therapeutic devices, tobacco products and advertising. It would have increased the number of drugs which had to be declared on the label. It would have permitted only licensed medical practitioners and pharmacists to make representations of therapeutic worth for foods and drugs. And its prohibition against claims "intended or calculated to produce in the minds of persons reading them, or to whom the same may be read, a false impression of the existence of disease in their own bodies" makes the advertising provisions of the Copeland Bill seem tame by comparison. Indeed, present-day critics of advertising, fed up with the so-called "scare" copy for halitosis and other ailments diagnosed in the copywriter's consulting room, would no doubt consider the inclusion of similar strictures in the current bill altogether desirable.

The following year, as we have had occasion to mention before, Secretary Houston in his Annual Report suggested that the law be revised to provide standards for food products. And he went on to say:

"Other serious limitations in the Food and Drugs Act result from the Act's definition of 'drug.' It is impossible to control cosmetics containing injurious drugs, and remedies for obesity and leanness, or to prevent the use of wood alcohol in remedies for external application. The list of injurious drugs which must be declared on the label is now limited, and authority should be given to require statements of other drugs and the new habit-



Reading from left to right, the men behind the proposed revision of the Pure Food Law are: (top) Senator Royal S. Copeland of New York and Representative Virgil E. Chapman of Kentucky, its sponsors in Congress; (center) Under-Secretary Rexford Guy Tugwell of the Department of Agriculture, who obtained presidential approval of the undertaking, and Mr. Walter G. Campbell, Chief of the Food and Drug Administration, who proposed it; (bottom) Mr. Ole Salthe, former Director of the Bureau of Foods and Drugs in the New York City Health Department and Mr. Charles W. Crawford, Chief of Interstate Supervision in the Food and Drug Administration, who acted as technical advisers.

forming or dangerous compounds which chemists are constantly producing."

Even more interesting are the revisions recommended by the Solicitor and the Bureau of Chemistry to the Secretary in 1914, most of which he passed on to Representative A. W. Lafferty of the House Committee on Interstate and Foreign Commerce. These changes included a broader definition of the term "food"; extension of the definition of drugs to cover cosmetics, obesity and anti-lean remedies, and therapeutic devices; additions to the list of drugs to be declared on the label; prohibition against the use of wood alcohol in medicinal preparations; denaturing, under certain circumstances, of products unfit for food so that they could be used only in the arts and industries; authority for the Secretary to fix standards for foods and drugs; modifications in administrative procedure with a view to saving time and money; increased penalties; more authority over labels; sanitary inspection of factories and warehouses (especially to detect the use of filthy or decomposed materials in the manufacture of food products); and control of advertising.

Secretary Houston repeated his recommendations the following year, this time offering them also to Representative Burton L. French; and again in 1919 to Representative Gilbert N. Haugen, chairman of the House Committee on Agriculture. Meanwhile, Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, had been harping on the same string in his Annual Report for 1917.

Old carbons in the Department's files show that many of these proposals originated with a young lawyer who had been doing Food and Drug enforcement work in Kentucky, and who had come down to Washington to spend a year or two with Dr. Wiley for the sake of the experience. The Bureau's beloved Mary Tidd Read, who was Dr. Wiley's secretary for many years, tells a story about his arrival. It seems that early in 1907, when the law went into effect, the Civil Service Commission held an examination for inspectors. As more than fourteen hundred young men took it, the results were not ready to be

announced until some time late in May. Then Dr. Wiley summoned the fourteen successful candidates to Washington, to instruct them in their new duties and assign them to their several posts. It was typical Washington weather, and the first day was rather trying for everybody. When it was all over, Dr. Wiley was relaxing in his own office, his long legs stretched out and his feet on the desk, while his tired secretary was typing off her notes.

"Molly!" he said suddenly. "Do you know who's going to run this show?"

"Run it! What do you mean?"

"I don't know what his name is, but he's that tall black-headed fellow who stood in the doorway."

"Oh," Mrs. Read said, "that's Walter Campbell! Don't you remember, Dr. Wiley? He's the one who passed at the head of the list."

"Don't give a damn if he did," said Dr. Wiley. "I still like his looks."

And the next day he appointed him chief inspector.

Other old-timers will tell you, with evident enjoyment, about the morning a few months after that when the doctor came down to his office in a rage over some barrels of "whisky" he had seen on the sidewalk over on E Street. No legal actions had so far been taken under the new law, for it was not yet properly oiled and geared; but Dr. Wiley wanted something done about that rectified whisky before he was a day older. His chief inspector suggested that the speediest way of taking care of it would be to seize it under Section Ten of the law.

"All right. You're a lawyer. You fix it up."

That was no easy assignment. Though the seizure idea had been taken over from admiralty law, nobody knew exactly how it was supposed to operate. And the United States attorney, when he was appealed to, frankly threw up his hands:

"I never wrote a libel in my life. I don't know how."

So Mr. Campbell wrote the first libel, and his model has been followed ever since.

It is not too much to say that no one else in the history of

the Food and Drugs Act has had so much practical experience with the difficulties of enforcing the law as this man who grew up with it and who has had an active part in its administration from the very beginning. For years, in his public addresses, in his contacts with members of Congress, in his conferences with State enforcement agencies, in his writings, and especially in his Annual Report for 1931—from which the consumer-protection racketeers have obviously drawn much of their stock in trade—Mr. Campbell has consistently preached the need for drastic revision of the statute.

But, as Mr. Campbell would be the first to point out, when the great opportunity came, he had other seasoned officials to help him: Dr. Paul B. Dunbar, Assistant Chief of the Administration, who had also joined the Bureau during the summer of 1907 and who, as a brilliant kid chemist, had worked out methods of food analysis that are classics today, but who was much too good an executive to be left in peace in a laboratory; P. J. Cronin of the Solicitor's Office, who had been trying Food and Drug cases in court ever since there had been any to try; J. B. O'Donnell and John F. Moore, also of the Solicitor's Office, who had had so much to do with the successful outcome of the important *B. & M.* case; Charles W. Crawford, Chief of Interstate Supervision, who for several years had been directly in charge of enforcement activities; and Chief Inspector George P. Larrick, as well as other officials in Washington and in the field.

Not only did these men have actual experience with the old law to guide them, together with all the previous attempts at revision, but they now sought the best expert advice outside the Department. Questionnaires were sent to State enforcement officials and to private organizations and individuals known to be interested in consumer protection and sufficiently familiar with the Food and Drugs Act to have an intelligent opinion about it, to get their suggestions. Two hundred and thirty of these consumer representatives took the trouble to fill out and return the questionnaires. Let it be noted that their answers received careful study by the men who were drafting the bill.

And then, to be entirely fair to everybody concerned, a hearing was held at which representatives of the industries who were sincerely interested in curbing abuses might give their views. The members of this group, however, did not grasp the idea, but grumbled when they were not given a completed draft to tear to pieces. Especially was their dignity affronted, according to the trade papers, because the Assistant Secretary, after opening the conference, did not stick around to hear everything they had to say but left a bureau chief in charge. Dr. Tugwell, however, had no intention of participating in the work of drafting the bill. He left that to men whom he believed better qualified. His contribution—and it cannot be measured in ordinary terms—was the winning of presidential approval of the undertaking, and his own sympathetic support, not only of the proposed legislation, but of the enforcement of the old act in the interests of consumers. He has never written a line of any one of the many drafts of the bill, nor dictated the substance of any provision.

Some of the "suggestions" advanced by the industries were just what one might have expected: The flavoring-extract people were opposed to prohibitions against slack-fill or deceptive containers; the canners did not want the operations of the McNary-Mapes Amendment disturbed; the creameries, on the other hand, did want a more flexible standard for butter; the drug crowd were afraid they were going to be put under a licensing system and required to disclose their formulas; food manufacturers were equally apprehensive that the ingredients of their products would have to be declared; publishers and advertising agencies were perturbed about rumors that they were to be held jointly responsible with the manufacturer for false claims in advertising; several individuals talked about a "board of review" that would check on the activities of the Food and Drug Administration; and they were all pretty nervous about the possibility that advertising might be censored before publication. Their alarm heightened noticeably when Mr. Huston Thompson, a well-known Washington lawyer, dropped in on the conference. Mr. Thompson was generally

supposed to have had a hand in drafting the Securities Exchange Act, which requires the advertisers of securities to file copies of their advertisements with the Government. When the jittery trade representatives saw him come in, they immediately jumped to the conclusion that he was going to write the food-and-drugs bill and put in it some sort of censorship requirement. But as it turned out, Mr. Thompson was merely looking after the interests of a client—*Feenamint*, the phenolphthalein chewing gum.

When it came time to get the bill down on paper, the men who took part in drafting it were Mr. Campbell and Mr. Crawford of the Food and Drug Administration; Mr. Cronin, Mr. O'Donnell and especially Mr. Moore of the Solicitor's Office; Professor Milton Handler of Columbia Law School; Mr. Fred H. Lee, for many years the drafting expert of the United States Senate; and Professor David F. Cavers of Duke University Law School, who was engaged as an authority on administrative law.

The work was not completed until May 31. One thing that held it up was the determined effort to make the necessary revisions through amendments to the old law. For sentimental reasons if for no others the Department was reluctant to discard the text of the law for which Dr. Wiley had fought so long and so valiantly. But the statute was already so overhung with amendments, as well as with the ambiguous verbiage of which Dr. Wiley himself had complained more than once, that to have amended it further would have been simply to create more loopholes still. All the valuable features of the law were retained, however, and as much of the actual language as possible, while essential new provisions were added.

But at length it was finished, and on June 1, 1933, after it had been approved by the Department of Justice, Secretary Wallace sent copies of the completed draft to Senator Ellison D. Smith, chairman of the Senate Committee on Agriculture and Forestry, and Representative Marvin Jones, chairman of the House Agriculture Committee.

More than a week later, *Drug Trade News*, which boasts an

exceptionally alert Washington correspondent, reported that Messrs. Smith and Jones "had not had time to study the measure." The dispatch continued:

"Of course, the bill must be introduced by someone sooner or later, but at present there doesn't seem to be an enthusiastic rush to sponsor it. Evidently there is a realization that it contains dynamite."

There is no evidence that the Department ever expected the bill to be voted on during those exciting One Hundred Days. But there was unquestionably a strong feeling that it should be officially on record in order that the public might have an opportunity to become sufficiently acquainted with it before the next session to support it against the certain opposition of those whom it was intended to control. With that end in view, Senator Copeland, who seems to have been the only member of Congress willing to risk it, introduced it in the closing hours of the session. It was read twice, according to custom, and as Senate Bill 1944 referred to the Committee on Commerce, of which the Senator from New York was a member.*

In examining the provisions of the Copeland Bill, we must bear in mind the fundamental limitations imposed on Federal authority by the Constitution. For example, Federal control cannot extend to foods, drugs or cosmetics which are not shipped outside the State in which they are made, nor to products which, even though they have been shipped in interstate commerce, have since become "commingled with the property of the State." Such articles have passed beyond Federal jurisdiction. It must also be remembered that it is necessary, not only under the present Food and Drugs Act, but under any similar law which might be enacted, for the Government to prove its case to the satisfaction of a court and jury.

Though the bill has since been battered almost beyond recognition, its original provisions were designed specifically to con-

* Reference is sometimes made to H. R. 6110 of that session, a trademark bill sponsored by Representative Sirovich, to which he attached the Copeland Bill as a rider. It may be ignored.

trol such abuses as we have discussed in preceding chapters. First of all, it covered cosmetics, banning outright such products as *Koremlu* and *Lash-Lure*, and regulating the manufacture, advertising and sale of all other beauty products in interstate commerce. It eliminated the fraud joker, so that the Government would be required to prove only that a drug was worthless, without having to show also that the manufacturer was guilty of an intent to defraud. It forbade the advertising of any drug for tuberculosis, diabetes, cancer and other specified diseases in which self-medication is especially dangerous. Unfortunately—and this was one of the chief defects in the bill—it did not require the peddlers of quack medicines to be licensed. It outlawed entirely patent medicines which might be dangerous to health under the conditions of use prescribed in the labeling—things like dinitrophenol or cinchophen; and required hypnotic or habit-forming products to carry warning labels. It forbade the representation of drugs as cures when they had only a palliative effect; stipulated that antiseptics give an accurate account of themselves on their labels; provided for the declaration of formulas; and required that drugs liable to deterioration be packaged and labeled in such a way that the consumer could be sure they were properly effective when he bought them. It provided much-needed control over curative devices, fat-reducers and other substances or contraptions intended to alter the structure or functions of the body. It gave the Department of Agriculture special authority to regulate the advertising of foods, drugs and cosmetics. It demanded fully informative labels on both foods and drugs. It authorized the Secretary to fix not only standards of identity for all food products, but multiple standards of quality as well (with the grades declared on the labels), and also tolerances for poisons in foods and cosmetics. It forbade slack fills and the use of deceptive containers. It eliminated the distinctive-name joker. It provided for factory inspection and voluntary supervision of food production, as well as authorizing the Government under certain circumstances to put the manufacturer under a permit which would insure sanitary conditions and a wholesome prod-

SHALL WE LET HIM PASS?



uct. And it provided more drastic penalties, with injunctions against chronic offenders.

But opponents of the proposed legislation did not need to know what was in it in order to criticize it. They simply dusted off the same old arguments they had used in 1906; substituted the name "Campbell" or "Tugwell" for "Wiley"; changed "czar" to "dictator" (in making invidious comparisons between the Secretary of Agriculture and the head of the Russian Government) and had their propaganda circulating in no time. For target purposes they promptly dubbed it—and have since persisted in calling it—the "Tugwell Bill" though properly speaking any bill takes its name from the man who sponsors it in Congress. Because Dr. Tugwell had once visited Russia, it was not difficult for them to ferret out his subversive motives for supporting this bill. One look at the title was enough to show the editors of a prominent advertising weekly and a journal of the food industries how dangerous it was:

A BILL

"To prevent the manufacture, shipment, and sale of adulterated or misbranded food, drink, drugs, and cosmetics, and to regulate traffic therein; to prevent the false advertisement of food, drink, drugs, and cosmetics; and for other purposes."

What deep-laid plot to overthrow the Government lay behind those four sinister little words—"*and for other purposes*"? What did he mean by them?

Though it is a temptation to reply that they were taken from some such socialistic measure as, say, the Smoot-Hawley Tariff Act of 1930, the truth is that the phrase appears in virtually every statute of any length enacted on Capitol Hill, particularly if it covers a complex subject, as does the food-and-drugs bill. Indeed, it may be found in the title of the existing law.

Equally profound were some of the other criticisms directed against the bill. They would be funny, if they had not been accepted so readily by unthinking persons and so been instru-

mental in holding up a vitally necessary piece of reform legislation. Admittedly, few people are willing to sit down and study any bill with the attention it requires. It is much easier to pick up some catch phrase like "burning down the house to get rid of the rats," "we've just got rid of Prohibition," or that bromide about needing a doctor's prescription to take an aspirin tablet, without bothering much about its origin or purpose. A measure dealing so extensively with scientific technicalities as the Copeland Bill could hardly hope for a wide circle of readers.

Perhaps the most common attack on the bill—and certainly the one with the greatest popular appeal—was the charge that it denied the right of self-medication. What it did, on the contrary, was to try to insure the safety and efficacy of self-treatment by requiring that drugs be labeled with directions for use under which they would not be harmful to health; that they possess the remedial value ascribed to them in their labeling and advertising; and that their labels reveal their composition, so that the individual who treats his own ailments may do so intelligently.

Another grievance was the ban on advertising a mere palliative as a cure. But the purpose of this provision was to safeguard those consumers who do not realize there are so few specifics. There are probably few patent medicines that have no value at all when directed toward the treatment of symptoms. The trouble is that the manufacturers want to claim too much for them. Because of their persistence in trying to create the impression that packaged medicines are cure-alls for every condition from abscesses to zymosis, they have only themselves to thank for the growing demand that they be made to qualify their therapeutic claims.

To bring the charge of "czaristic power" down to earth, opponents of the bill attacked as "unconstitutional" the authority given the Secretary to make such regulations in dealing with *specific* situations as might be necessary in order to protect the consumer's health or pocketbook. It is unfortunate in some ways that this much-needed revision of the Pure Food Law has been

in the legislative hopper along with other New Deal measures so controversial in the same respect. For with the food-and-drugs bill it has been less a question of political philosophy than of a practical method of coping with ever-changing technical problems, a method predicated on nearly thirty years of administering an inadequate law.

There is ample precedent in various Federal Laws, including the Food and Drugs Act itself, for giving the Secretary or other administrative officers the power to make regulations in the Federal Trade Commission Act, the Clayton Act, the Longshoremen and Harbor Workers' Compensation Act, the Packers and Stockyards Act, the Tariff Commission Act and the McNary-Mapes Amendment to the Pure Food Law. Moreover, this practice has been recognized as constitutional by the courts. In a Pennsylvania action cited with approval in the famous *Union Bridge Company vs. U. S.*, the court held:

"The legislature cannot delegate its power to make a law, but it can make a law to delegate a power to determine some fact or state of things upon which the law makes or intends to make its own action depend. To deny this would be to stop the wheels of government. There are many things upon which wise and useful legislation must depend which cannot be shown to the law-making power and must therefore be a subject of inquiry and determination outside of the halls of legislation."

Though the food-and-drugs bill was merely an attempt to write into permanent legislation those principles of fair play for consumers and competitors that had already been incorporated in the NRA codes, there was considerable sniping by those who sought to hide behind the Blue Eagle. Typical was a circular sent out by the Drug, Chemical and Allied Trades Section of the New York Board of Trade, which read, in part:

"The 'Tugwell' Food and Drug Bill is anti-NRA. It will seriously affect employment and morale in the industries indicated. It will put thousands of men and women out of work. It will close dozens of manufacturing plants and hundreds of

stores . . . *It will hurt thousands . . . It will help none . . .*
 When the "Tugwell" Bill is introduced in Congress, it must be defeated."

See your Congressman

Write your Senator

Similar warnings were sent to General Johnson. This one, a fair sample, is signed by an executive of the agency handling the advertising for Mr. Frank Blair's *Cascarets* and Mr. Lee Bristol's *Ingraham's Milkweed Cream*:

"Specializing, as this agency does, in the advertising of proprietary medicines, cosmetics and toilet articles, we feel that it may not be amiss to direct your attention to a matter which is holding back recovery in these lines.

"We have reference to the Tugwell Bill. . . .

"While both we and our clients are in entire sympathy with the aims and purposes of the Tugwell Bill, we are all of one mind in our fears about such a sweeping grant of autocratic power being placed in the hands of any bureau or department of government.

"The Tugwell Bill has certainly been causing a great deal of fear and feeling of uncertainty about the future among manufacturers and advertisers of foods, drugs, cosmetics and toilet articles, and in face of these fears and uncertainties, several of our clients have been very reluctant to authorize a continuance of their advertising even on the usual or normal basis.

"We fully realize that your Department had no part in the introduction of the Tugwell Bill and hasn't anything to do with its consideration by Congress, but we felt that you were entitled to know that there is such an influence at work retarding the full and free development of your progress in the food, drug and cosmetic industries."

Still another type of letter that the General used to get was the kind that came in in duplicate. For instance, a batch that bore a Buffalo postmark were carbon copies of a few originals, which looked as they they had been typed hurriedly by the boss' stenographer and handed around to be signed. All of them read:

"If the new food and drugs Bill (Tugwell) goes through as now proposed, the whole drugs industry will be upset. I am much opposed to this bill."

It needed no Sherlock Holmes to look up the signers in the *Buffalo City Directory*—and find that they were truck drivers, telephone operators, "helpers," and even one chemist, in the employ of the Mentholatum Company.

Mr. E. K. Hyde of the Mentholatum Company was, of course, active in the Buffalo local of the Minute Men. This organization was conceived in the mind of Mr. Charles Atkinson, vice-president of the Arner Company of Buffalo, a manufacturing concern which does an exclusively private-formula business. That is, Arner was the actual maker of *Arium*, for instance, the "radium-in-tablets" nostrum that William J. A. Bailey used to peddle before he became interested in radium-charged water. Characteristic of the propaganda disseminated by the Minute Men was this circular:

"MR. RETAILER:

"What will you do after
you have lost 53% of
your business?

"*Do you know:*

"1. There are pending in Congress new Food, Drug and Cosmetic Bills that are likely to put you out of business?

"2. Do you know it will be impossible for your customers to buy many of your fastest sellers without a physician's prescription?

"3. Do you know that many of your fastest moving items will be forced off the market altogether?

"4. Do you know that many of your biggest selling cosmetics will no longer be permitted to be sold?

"5. Do you know these pending bills give government officials absolute domination over manufacturers' business and your business, including even the pharmacopoeia? *

* The bill simply set up the *U. S. Pharmacopoeia* and *National Formulary* as the standards for drugs recognized in them—just as the Wiley Food and Drugs Act had been doing for twenty-seven years.

"6. Do you know that this is the most sinister and serious situation that has ever confronted your business?"

"What to do about it

"1. Familiarize yourself with the digests of these vicious bills.

"2. Get a letter of protest off immediately to your Congressmen and Senators.

"3. Have your clerks and pharmacists do likewise.

"4. Write to the Industrial Advisory Board, Washington, D. C., and point out to them the disastrous effect this legislation is already having by manufacturers holding back advertising and purchases of materials. Point out further that the curtailment of business that is now beginning to be felt is but a slight indication of what will occur later. Emphasize that the public is amply protected under present laws and that this new law is as destructive as it is unnecessary.

"5. Don't stop there. Have your landlord write if he wants you to remain a tenant.

"6. Have your suppliers write if they would continue to supply you.

"7. Let your customers know what this legislation means to them. Let them know they may not be able to buy many simple household medicines without paying \$3.00 for a physician's prescription. Let them know that many of the old reliable medicines that their families have depended on for generations will no longer be permitted to be sold. Let them know that they may not exercise their liberty even in the purchase of cosmetics, but will be able to buy only those cosmetics that bureaucratic officials decree may be sold.

"This emergency message comes to you from the local Vigilance Committee, known as the Minute Men. It is composed of manufacturers, retailers, wholesalers, advertising agencies and publishers. They are organized to help you stay in business. Help them to help you stay in business by giving them your active cooperation. Similar organizations are forming throughout the country."

It was a Minute Man, Mr. Daniel A. Lundy of the Home Drug Company of Minneapolis, manufacturers of *Prescription*.

No. 69 for gallstones, who wrote to members of Congress to invoke the "gag law" against Mr. Campbell and others of the Food and Drug Administration for spreading "propaganda" in favor of the Copeland Bill—which, by the way, specifically forbade the advertising to the public of any drug for gallstones, listing that disease as one in which self-treatment is particularly undesirable.

This "gag law," which the patent-medicine crowd has been brandishing over the heads of those who might tell the truth about their products ever since the Copeland Bill was introduced, is part of a Deficiency Appropriation Act for 1919. Originally aimed at the admirals, according to legend, it forbids Government officials to spend public funds to influence members of Congress in respect to pending legislation, and carries a heavy penalty. There is much to be said in favor of such a law—though it should have a companion piece forbidding members of Congress to try to influence administrative officials in the discharge of their duties; but in this instance it has served to protect the falsehoods and misrepresentations spread by those who have most to gain from suppressing the facts, and thus kept the public from learning the truth.

It was the drug men themselves, however, who really gave the "Chamber of Horrors" so much publicity. And their trade papers, apparently, that gave it the name! These simple, home-made illustrations of the limitations in the Food and Drugs Act were prepared, as we have said, for the Senate Committee on Commerce, which was to hold hearings on the bill. Mrs. Roosevelt heard about them somehow and wanted to see them. It happened that the morning she came down to the Department George Durno of the McClure Syndicate also dropped in. Mr. Durno, of course, was too good a newspaper man not to appreciate the significance of her visit, and wrote it up in his column, remarking that she appeared to be shocked by what she saw. His stories usually precipitated a flood of fan mail, but the response to this one was out of the ordinary. The drug men were furious. And as dogs bark where they are fed, a howl of protest went up from certain newspapers. The joke of it was,

Daniel A. Lundy

ADVERTISING
COUNSEL AND COPY

~~MINNEAPOLIS, MINNESOTA~~
Minneapolis, Minnesota
18 NORTH FOURTH ST.

Phone Main 7077

December 29th, 1933.

My dear Senator:-

It would seem, if Section 6 of the Deficiency Appropriation Act, for the fiscal year of 1919 and prior year, is still active, Walter Campbell may well be dismissed and prosecuted for his alleged gross violations and abuse of authority, in spending government money without permission of the Congress for radio, Paramount News Reel, diversion of his employees time for selfish purposes and other means to influence passage of unconstitutional Tugwell-Copeland-Sirovich Food & Drug bills.

Walter Campbell, it would seem has over ridden all official propriety and wisdom in his alleged overt act, and no public trust or confidence once violated, as in this case, can be restored. There seems but one road for Congress - the road in dismissing the Chief of the F&D department, with penalties, if substantiated.

All others who have aided and abetted in these vicious and irregular proposals, whether in lending their names or in actions should come under the same discipline.

Honest industry and a decent public prays for a thorough and speedy investigation and not a white-wash of an alleged crime as despicable and deplorable and the sell-out of the "Tea-Pot-Dome".

DALundy/M

Very respectfully yours,



P. S. An immediate investigation seems paramount to the consideration of the proposed bills.

This letter was sent to every member of Congress by the manufacturer of "Prescription No. 69" for gallstones. Advertisements for this nostrum like the one in the collection of false advertising shown opposite page 62 would be outlawed under the "Tugwell-Copeland-Sirovich Bills." (Reproduction from a Government exhibit.)

though, that their readers, instead of getting worked up as they were supposed to over Mrs. Roosevelt's seeing the display, immediately wanted to know where they could look at it, too.

But *Drug Trade News* thought it was "dirty business":

"In this Chamber of Horrors the Department has a group of products represented as helpful for diabetes, cancer, tuberculosis, and other distresses of the human system. . . .

"Not one of these products has had any appreciable volume of sales. No responsible manufacturer makes them.

"Neither the Proprietary Association or the United Medicine Manufacturers of America would accept for membership within their ranks any manufacturer producing such products.

"Yet they are paraded before lay eyes as typical of the package medicine industry. . . .

"This is dirty business. . . .

"Every one of the products in the Chamber of Horrors can be put out of business without any revision of the present Food and Drugs Act.

"As a matter of fact, most of them are at the moment out of business due to operation of the present law."

No doubt it surprised such members of the Proprietary Association as the manufacturers of *Lydia E. Pinkham's Vegetable Compound*, *Mountain Valley Water*, *Othine*, *Forhan's* or *Vapo-Cresolene*—to pick a few products at random from the "Chamber of Horrors"—to read that they had been "put out of business" already.* To be sure, some of them had been compelled under the existing law to clean up their labels. And that was just the trouble! They knew that if the proposed new law went through, the Food and Drug Administration would make them clean up their advertising as well.

When the House hearings on the bill were held in the summer of 1935, Lydia Pinkham's daughter and granddaughter turned up with a Congressman to announce their presence and a lawyer to answer embarrassing questions. They had come to protest against giving the Food and Drug Administration con-

* *Drug Trade News* is a member of the United Medicine Manufacturers of America.

trol over their advertising; otherwise they were in favor of the bill. At this point, Representative Virgil E. Chapman of Kentucky, who was chairman of the sub-committee considering the measure, interrupted the proceedings to insert a little "pink slip" in the record. It read this way:

PLEASE DO THIS AT ONCE

"There is a bill now in Congress which, if passed, will interfere with every patent medicine business. Eventually it will be very hard for you to purchase Lydia E. Pinkham's Vegetable Compound or any other medicine which you are now in the habit of using and which you know helps you.

"We are trying to stop this bill from becoming a law. You can help us. Please sign your name and address to the enclosed letter and mail it in the enclosed envelope immediately.

LYDIA E. PINKHAM MEDICINE CO.

"Destroy this colored slip after mailing letter."

One of the letters written in response to the pink slip, which Mr. Chapman also inserted in the record, indicated some slight "discord among the barbarians." It read:

"DEAR CONGRESSMAN: Please vote against the Copeland food and drugs bill which has passed the Senate.

"I know that it is aimed against Lydia E. Pinkham's Vegetable Compound so that the doctors and other medicines like aspirin and Midol will be helped to get more money.

"It is very wrong to favor one group of people over another just because you think there is more political strength behind them. You will find out, however, that you are wrong and the women of America will show you that you cannot deprive them of Lydia E. Pinkham's Vegetable Compound without hearing from us at election time."

Bayer's Aspirin and *Midol*, it should be explained, belong to the Sterling Products Company of Wheeling, West Virginia, with which Mr. Frank Blair, president of the Proprietary Association, is prominently connected; and Mr. Blair, having succeeded with the help of his attorney in emasculating the Cope-

land Bill in certain important particulars, had consented to its passage in the Senate, and was now urging its speedy adoption in the same form by the House.

The *Compound*, Mr. Chapman brought out, was composed of 18 per cent. alcohol. (The nostrum is said to have its largest sale in the dry State of Kansas.) Wouldn't a drink of good Kentucky Bourbon be just as effective? And was it true "there's a baby in every bottle"? What was it good for, anyway?

Attorney Hugh H. Obear knew only that it was "beneficial." "Beyond that, I do not know. I never took it."

Mountain Valley, a good enough drinking water—with a composition very much like that of Washington city tap water, but selling at seven dollars a case—had likewise run afoul of the existing Food and Drugs Act. In 1914 it had been declared misbranded because of claims to radio-activity and therapeutic worth for diabetes, cystitis, rheumatism and Bright's disease. The result of that legal action was of course that those fake claims could be made after that only in collateral advertising, over which only the Federal Trade Commission has any pretense to authority. Naturally enough, the record of the hearings on S. 2800 (the third incarnation of the Copeland Bill) shows objections by this concern to all of the proposed restraints on false advertising.

By that time, however, the most bitterly assailed of all the provisions relating to advertising had suffered a major operation. This was Section 9 (a), which had originally been drafted to read:

"An advertisement of a food, drug or cosmetic shall be deemed to be false if in any particular it is untrue, or by ambiguity or inference creates a misleading impression regarding such food, drug or cosmetic."

This language was condemned on sight as indefinite, impracticable, theoretical and utterly unenforceable. But for all that it has been recognized as the law of the land, so far as labels are concerned, since June 2, 1924. On that date the Supreme Court of the United States handed down a decision in the famous

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THE

"United States vs. 95 Barrels of Vinegar" case, which said, in part:*

"Deception may result from the use of statements not technically false or which may be literally true. The aim of the statute is to prevent that resulting from indirection and ambiguity, as well as from statements which are false. It is not difficult to choose statements, designs and devices which will not deceive. Those which are ambiguous and liable to mislead should be read favorably to the accomplishment of the purpose of the act."

That decision, clarifying the somewhat obscure terms of the original Food and Drugs Act, has promoted less, rather than more, litigation, and has saved huge costs to both the Government and industry. But the advertisers did not like it, and so the prohibition against "inference and ambiguity" was struck out of the bill in the very first round of Senate hearings. Responsibility for this blow at consumer protection was claimed by the National Publishers' Association, representing all the big-time magazines. A letter sent out by the executive secretary to the membership in the summer of 1934 contained this boastful paragraph:

"Tugwell Pure Food and Drug Bill

"As originally proposed, this legislation would have been a serious blow to all advertising. Your committee and executives were finally successful in modifying this proposed legislation in a fairly satisfactory manner. The net result was no legislation."

The magazines, however, had a little help from the weekly, daily and religious newspapers, to say nothing of the trade press. Actually before the bill was introduced rumors were flying about that "the red clause" was back in circulation. This was a device thought up by the Proprietary Association during the fight against the Wiley law as a means of keeping authentic information from the public and so aiding the defeat of the measure. It got its name from the fact that it was originally printed in red ink on the advertising contracts between members

* 265 U. S. 438 (1924).

of the Proprietary Association and the publications carrying their copy. The substance of it was that the contract would become void in the event of hostile legislation. During the present fight I have seen it even in real-estate contracts; and of course its use is by no means confined to the organization that devised it.

Opposition from the weekly press may be traced chiefly to the activities of Mr. Wright Patterson, president of the Western Newspaper Union, which supplies ready-print pages ("patent insides") to some 2500 weekly papers. These prepared sheets are sold to the weeklies at a nominal cost made possible by their columns of "sore-toe" advertising. They carry special features in the way of world news, fiction, puzzles, cartoons, dressmaking designs, household hints and other material which the small-town editor could not otherwise afford to buy. While the editor is the one usually censured for the hair-growers, fat-reducers, gland tonics, rattlesnake oils and other quack cures advertised in his paper, the profits from such copy go to the publisher of the ready-print pages. Agencies that would not be bothered to deal separately with hundreds of small papers, because the cost of so many individual mats, endless clerical work and so forth would offset the small commissions, are glad to take advantage of their volume circulation through such a clearing house as the Western Newspaper Union. (There are other, similar syndicates, but this one seems to be the most important.) During the fall of 1933, the *Publishers' Auxiliary*, trade-journal house organ of this concern, broke out in a rash over the Copeland Bill. Violent editorials denouncing the measure were featured on the front page, and propaganda emanating from the Proprietary Association was poured into its columns as through a funnel. Editorials inside the paper urged the country editors to write to their Senators and Congressmen in opposition to the bill and to send carbons of such letters to be printed in the *Publishers' Auxiliary*. But after several weeks of this campaigning, another editorial complained that no officers of any State press association had so far "done their duty" and sent in such letters.

The trade association of the weekly group is the National

Editorial Association, which Mr. William L. Daley represents in Washington. Mr. Daley and Mr. Patterson seem to have agreed to let one hand wash the other, as the saying goes. At the time the Western Newspaper Union was wrought up about the Copeland Bill, the NEA was having worries of its own over the NRA in the matter of wages, hours and so on—all of which was freely aired in the *Publishers' Auxiliary*, the while Mr. Daley was busily opposing the Copeland Bill, which would have laid impious hands on the advertisements in the "patent insides."

At the House hearings on the food-and-drug bills, Mr. William P. Jacobs of Clinton, South Carolina, bore further witness to the freedom of the press. Not voluntarily, you understand. The screws were put on, and none too gently, by Chairman Chapman, who seemed genuinely desirous of getting at the facts. And certainly no one, unless it were Mr. Bristol or Mr. Blair, could have been better qualified to divulge them than the executive vice-president of the Institute of Medicine Manufacturers, president of Jacobs' Religious List, vice-president and director of Clark-Jacobs (a New York advertising agency), proprietor of a drug product under the name of the Carolina Pharmaceutical Company and (though he forgot to mention it) chairman of the publicity committee of the United Medicine Manufacturers of America. Like everyone else who appeared before the Committee, Mr. Jacobs was in favor of food-and-drug legislation; his only thought was that the bill endorsed by enforcement officials might not be so effective in respect to drugs and advertising as that written by the lawyer for the Proprietary Association and introduced by the Congressman from Buffalo, Colonel James M. Mead. He was about to explain why when the chairman interrupted him:

MR. CHAPMAN. "Could you give us some of the principal products that you represent?"

MR. JACOBS. "The principal products that I represent?"

Naturally Mr. Jacobs was surprised. Drugmen were not accustomed to being asked to give an account of themselves at

food-and-drug hearings. He was not disposed to comply. Nothing constructive, he believed, would come out of a discussion of the advertising for products put out by members of the institute. Before he left the stand, however, he had discussed a good many things that he and his friends usually talk over only among themselves. Oddly, the number of manufacturers represented in the institute dropped from eighty-five to only forty between his two appearances on the stand. But he told who they were (the list is printed in the back of this book, together with that of the Proprietary Association, given out for the first time in twenty-five years), and described the "duty" of the organization as "public relations." For his work with this institute (he volunteered this information) he "never received a penny's compensation." Jacobs' Religious List was another matter. This was an out-and-out advertising proposition whereby he and his brother, on commission, sold the white space in a string of church papers throughout the South. Samples of these publications, such as the *Alabama Baptist*, the *Arkansas Methodist and Baptist Standard*, and the *Religious Herald*, which Mr. Chapman had obtained from the Library of Congress, carried advertisements of a sort the uninitiated might not expect to find in columns next to sermons, hymns and Bible lessons for the children. To remark a few at random, there were a *Whiskey Cure*; *Lydia E. Pinkham's Vegetable Compound*, with 18 per cent. alcohol, and also her *Sanative Wash*; *Gray's Ointment*, a lead compound which the Food and Drug Administration seized in 1929 because of claims in the labeling for "almost every disease that afflicts man or beast," from cancer to snake bite; and *Cystex*, a bladder remedy, which the promoter stipulated with the Federal Trade Commission in 1932 he would no longer advertise as

"—a cure for bladder weakness, or getting up nights, or back-aches, or burning or itching sensations, or leg or groin pains regardless of how the same may be caused."

Unfortunately Mr. Jacobs did not explain what subtle arts he employed in persuading the clergymen-editors of these pious

sheets to accept such copy, nor yet the usual means by which these journals are financed.

Another product for which Mr. Jacobs admitted handling some advertising was *Creomulsion*. This is a cough medicine, which, as the chairman noted for the benefit of the record, was seized by the Food and Drug Administration in 1929 and required to post a bond of \$31,800 pending the deletion of false and fraudulent curative claims from its labeling. Mr. Chapman also put in the record a letter (reproduced on the opposite page) which the Creomulsion Company sent to newspapers carrying advertising for this one-time cure for "chronic coughs and persistent colds" (by inference and ambiguity—pneumonia and tuberculosis).

While Mr. Jacobs disclaimed all knowledge of this letter, he admitted he had heard of manufacturers sending out letters. Yes, he had written to newspapers, magazines and radio stations.

MR. CHAPMAN. "But as executive vice-president of the great Institute of Medicine Manufacturers, did you write to newspapers that carry medicine advertisements and tell them that the passage of this bill, as proposed, would probably have a deterrent effect on advertisements from medicine companies? You did do that, did you?"

MR. JACOBS. "Oh, yes, sir. . . ."

MR. CHAPMAN. "I will say this, Mr. Jacobs, you are very, very modest about everything, and I appreciate your enlightening statement. I don't know whether you know it or not, but some of the folks down in your home country think you get a very big salary out of this Institute of Medicine Manufacturers, and I do think you are very altruistic and self-sacrificing to devote such great energy and such brilliant talent, as you have already demonstrated to us, to this magnificent service to the proprietary medicine industry of the country. You, at least by insinuation, cause part of the press to turn against the piece of legislation that is supposed to be reform legislation, and draw no compensation whatever from those manufacturers who are the beneficiaries of your efforts. I know they must appreciate it greatly."

CREOMULSION COMPANY

INCORPORATED

ATLANTA, GEORGIA, U.S.A.

October 30, 1933.



Gentlemen:

You are about to lose a substantial amount of advertising revenue from food, cosmetic and drug manufacturers.

Your pocketbook is about to be filched and you will see how if you will personally study, or have your lawyer study for you, the enclosed copy of the Tugwell Bill and the two parallel analyses of it. This bill was introduced by two doctors in the Senate and House of Representatives respectively during the last session of Congress.

YOU PUBLISH YOUR PAPER FOR PROFIT AND AS A SERVICE TO YOUR COMMUNITY. In most virile business organizations the altruistic policies in the final analysis are means to the primary end which is profit. From a profit standpoint you will quickly see how you will be affected by this bill if it becomes law. From the standpoint of service to the people of your community we ask your careful reading of the enclosed folder entitled "The Economic Necessity and Moral Validity of the Prepared Medicine Business"

We ask you to take an active, aggressive stand against this bill, not as a matter of cooperation to us or other advertisers, but for your own business interests and the best interests of your community. An isolated editorial or two will not suffice in this matter.

1. You need to take an aggressive stand against this measure.
2. You need to bring all the personal pressure you can upon your Senators and Representatives.
3. You need to enlighten and thereby arouse your public against this bill that is calculated to greatly restrict personal rights.

If this bill should become law, we will be forced to cancel immediately every line of Creomulsion advertising. It is our opinion that we would not endeavor to contend with the administration of the unreasonable sections of this bill and that the business would be "milked" without any advertising or selling efforts being put forth thereafter. We would be only one of the many drug, cosmetic and food advertisers who would be forced to liquidate in this manner.

We hope you will act promptly and continuously on this between now and the time Congress convenes.

CREOMULSION FORMULA
Beechwood Glycerol, Menthol, Cassia,
F. E. Wild Cherry Bark, Spearmint, F. E.
Licorice Root, Syrup White Pine with
Tar, Oil of Myrror, Sugar and Water.
(No salicylates)

(Nothing—nothing—mildly narcotic)

Cordially,
CREOMULSION COMPANY, INC.

W. K. Rivers

Secretary.

CRVGS

This letter was sent to all newspapers carrying advertisements for Creomulsion, a cough medicine which was seized under the Federal Food and Drugs Act a few years ago because of false and fraudulent claims of therapeutic worth. (Reproduction from a Government exhibit.)

Mr. Jacobs' objections to the Copeland Bill, he explained, were directed against the provisions which would vest control of advertising (for foods, drugs and cosmetics) in the Food and Drug Administration rather than the Federal Trade Commission. He was opposed to this feature

"merely on account of the efficiency of the Federal Trade Commission as demonstrated during the past year in managing advertising."

A good many other people have been interested in the Commission's remarkable burst of activity in this field since the Copeland Bill was introduced. The Proprietary Association, which usually knows a good thing when it offers, hastened to capitalize on it in the Mead Bill, that red-herring substitute for the Copeland measure to which we have already referred, by proposing that advertising be regulated under the Commission's cease-and-desist procedure. In other words—good old *Status Quo!* The idea was promptly seized upon by other "Pain & Beauty Boys." * Mr. Jacobs especially, though he is ordinarily not very chummy with Mr. Blair's crowd, appealed to "Our Business Friends" to write letters to Senator Copeland and the other members of the Senate Commerce Committee endorsing the proposal. And he made the further curious suggestion that copies of such letters be sent to Mr. Ewin L. Davis, chairman of the Federal Trade Commission, and to Mr. E. J. Adams, chairman of its Special Board of Investigation, which handles patent-medicine advertising. Commenting on one of these appeals, *Printer's Ink* said disgustedly:

"The obvious reason why many manufacturers want the Federal Trade Commission to have charge of enforcing legislation affecting the merchandising of foods, drugs and cosmetics, is that from the very nature of things the enforcement would have to be largely that in name only. Anybody at all acquainted with Trade Commission procedure knows the reason. The

* So christened by Doris Fleeson and John O'Donnell in their column, *Capitol Stuff*, in the New York *Daily News* at the time of the hearings on S. 1944.

story is one of interminable delay, long drawn out and amateurish investigations and impudent detective work—these being only a few of the iniquities to be charged up to the body which Mr. Jacobs esteems so highly.

“To say that the ‘Commission has done a good job with advertising for years’ is, to put it mildly, being deliciously naive. The Commission has of course done nothing of the kind—as could be shown by chapter and verse that could be quoted until the cows come home.”

For all that, when the Copeland Bill at last reached the floor of the Senate in the spring of 1935, Senator Bennett Champ Clark of Missouri proposed an amendment by which the Federal Trade Commission rather than the Food and Drug Administration would have control of advertising. The weapon was to be the usual cease-and-desist order, which, if violated, would have to be referred to the appropriate circuit court of appeals for enforcement. Just what effect it would have in regulating such advertising as that which the Lambert Pharmacal Company of St. Louis put out for *Listerine* in the winter of 1933 is a question. Certainly the Commission took no action at that time. You may remember the campaign: Scareheads like “TUBERCULOSIS”—“MASTOID TROUBLE”—“SINUS TROUBLE”—“INFLUENZA”—“PNEUMONIA”—were flung across the top of the page, while the copy below implied that this alcoholic solution of boric acid, benzoic acid, thymol and other aromatic substances would prevent these serious disease conditions by preventing colds. But, as the *Journal of the American Medical Association* once pointed out in a discussion of *Listerine*, there is no scientific evidence that douching the nose and throat with even a good antiseptic would have such an effect. These claims, needless to say, were not attempted in the labeling, where direct court action would have made short work of them.

As Senator Clark, for some reason, did not push the amendment, the bill passed the Senate without it. But it is by no means a dead issue. Die-hards in the drug industry, such as Mr. Albion L. Page of *Vapo-Cresolene*, who says he wants to go on adver-

tising his product for whooping cough, have continued to agitate for it. In a letter to the editor of *Drug Trade News*, which may be found in the issue of October 14, 1935, Mr. Page writes:

"We are unalterably opposed to vesting the control of advertising in the Food and Drug Administration. We prefer to take our chances with the Federal Trade Commission."

Though the Copeland measure was practically the only bill on the Senate calendar at the time, the *Congressional Record* for the first week in April, 1935, reveals no great eagerness on the part of anyone except its sponsor to let it come up. And it was only over the protests of Senator Clark—that it had been rushed out of committee (after only two years' attention!)—that it was ever considered at all. Repeated attempts were made to have it sent back to committee for further "study." These failing, further emasculating operations had to be performed in the Senate Chamber itself.

The first of these surgical treatments was a paring down of the slight improvement which had been wrought over the "variation clause" in the existing law. Drugs recognized by the *U. S. Pharmacopoeia* and *National Formulary* have been required by the Food and Drugs Act to comply with the standards of strength, quality and purity set up by those authorities, or, if they varied, to state their own standards on their labels. The primary reason for permitting this variation was to insure an adequate supply of certain active principles, such as quinine, which can be manufactured in proper strength even from substandard crude drugs. It was argued that these crude drugs vary so in nature that to require them always to conform to the standard might conceivably be to shut off a necessary supply in poor seasons. To strengthen this provision in the interest of consumers, the Copeland Bill (S. 5) required that the nature and extent of any deviation from the standard be stated on the label. Senator Vandenberg, however, argued that under that language

"—the original manufacturers, the discoverer, the creator of cascara sagrada, because the U. S. P. has undertaken in its

discretion to change the formula in some slight manner, no longer can produce *cascara sagrada* . . . according to the formula upon which it had originally gained its popularity and its justified standing in the country, except as he puts upon the label an acknowledgment that it is unofficial or different in some aspects from the U. S. P., thus carrying the psychology of inferiority into the market places."

Because "the important thing is the maintenance of property rights which a legitimate manufacturer has in a commodity which he has perfected under a trade name," the Michigan Senator insisted that language substantially like that of the existing law be substituted for that of S. 5. Dr. Copeland retorted that this was "not a property-right bill." As a physician, he was more concerned about protecting the integrity of drugs from which doctors' prescriptions are filled. But though he did his best to save the stronger clause, he was eventually forced to yield to the man who, as he remarked, "might some day be President."

The question of Parke, Davis & Company's "property rights" in *cascara* came up again at the House hearings some four months later. Mr. Horace Bigelow, counsel for the famous Detroit firm, was testifying. He was not quite sure where Parke, Davis had first got the drug. His first thought was South America. The chairman, who had been studying the subject apparently, and who recalled that the drug had been used by the Indians in California, suggested that the first published account of its medicinal value—that by Dr. J. F. Bundy of Caloosa, California, in 1876—might have prompted its commercial exploitation. Mr. Bigelow didn't know. Had Parke, Davis frequently changed the formula, so that it had passed through many variations since that company had been making it? Mr. Bigelow would not be surprised if that were true—to improve the quality, of course. But wasn't it true, Mr. Chapman wanted to know, that in manufacturing a product like this, in maintaining or even improving its quality, there was also a motive to work out a formula by which the product could be marketed as cheaply as possible? Mr. Bigelow was not so sure Parke, Davis

had varied the formula; nor did he know anything about the *U. S. P.*'s action in the matter. But Mr. Chapman, who said he had been reading up on cascara, was still curious:

"My understanding . . . is that the Pharmacopoeia refused to accept your company's formula as a standard, and I have wondered if that was due to the fact that it had been, as I am advised, varied materially on numerous occasions. . . ."

The real iniquitousness of the variation clause was pointed out at both hearings on S. 5 by Dr. Robert P. Fischelis, president of the American Pharmaceutical Association (at the time of his first appearance) and secretary and chief chemist of the New Jersey State Board of Pharmacy. Speaking for a group in the drug industry whose views on the proposed legislation are less tinged with commercial self-interest than those of some others, Dr. Fischelis said:

"Our association is on record emphatically protesting against the use of *U. S. P.* and *N. F.* titles for any preparations except those which are prepared exactly according to *U. S. P.* or *N. F.* formulas. The pharmacopoeia has been developed in order to standardize medicines so a prescription written in Maine can be filled in California and be filled exactly in the same way. If an official title is used it should conform to an official standard. Nomenclature is one of the basic factors in standardization. If you have a definite name which means one thing in one place and another thing some place else, or if someone is allowed to use an official title without complying with the official standards, you are breaking down the standards that you have set up. . . .

"If tincture of iodine, which is an official product and contains 7 per cent of iodine, were to be manufactured below that strength, under this clause it could be labeled "tincture of iodine 5 per cent," or "tincture of iodine 4 per cent," or whatever the percentage might be, yet the consumer who knows nothing about the strength of official tincture of iodine would not be warned that it is not an official prescription. If that clause is not eliminated, at least it should be strengthened by the addition of some wording which would provide that the difference from the standard of strength should be stated on the label,

subject to some regulation by the Secretary of Agriculture as to just how that statement should be made."

Other floor amendments, sponsored by Senator Vandenberg and Senator Bailey, would permit the trial of seizure actions in the claimant's home bailiwick if he so desired. This is one of the worst provisions from the consumer's point of view that could possibly be devised. For instance, if several carloads of pears or apples from the Northwest, loaded with poisonous-spray residue, were to be seized in New York City, the shipper could contest those seizures before a jury of his fruit-spraying neighbors back on the Pacific Coast. Thus, the people who refuse to believe that spray residues are dangerous to health would be the ones to decide whether or not the people of New York should eat sprayed, but unwashed, fruit.

It was North Carolina's Senator Bailey who was responsible also for the series of manipulations which caused Senator Copeland, visibly moved, to cry out in what was probably the most impassioned speech of his long career:

"If these amendments . . . shall be adopted, I shall have no further interest in the bill. The provisions affected by all these amendments are those which implement and make possible the successful administration of the proposed law. . . . We have come now to the heart of the opposition. . . . We might just as well stay under the law as it is at present; there would be no added protection to the public under the provisions of the new bill. . . . I am talking about the hidden influences that reach into this body . . . there is, in effect, a conspiracy on the part of the patent-medicine-men—and some of them are sitting in the gallery right now as I speak—seeking to defeat the bill. Then there are certain newspaper interests who are so afraid that they will not be permitted any more to run the vile advertising which I have exhibited, who are so afraid that their dividends will be affected by this attack on their revenues that they are here in force, and possibly, though I pray not, they may have influence enough to beat the bill."

The first mutilation proposed by Senator Bailey was in the definitions, so that products "dangerous to health under the

conditions of use prescribed in the labeling or advertising" would be deemed misbranded instead of adulterated. That sounds innocent enough. But here was the joker! He next offered an amendment which would permit the Government to seize only one shipment in cases of misbranding unless on appeal to the court it could show that such misbranding made the product "imminently dangerous to health," whereupon the court might authorize further seizures. Of course, if the Government had previously won a judgment against the product under the identical labeling and on the identical charge, the stuff could be seized anywhere without restriction. But suppose the product which the Government wished to impound was *Banbar*, the horsetail nostrum for diabetes that we read about in Chapter Three, and men and women all over the country were dying because they had depended on this worthless medicine until it was too late for insulin to help them. Regardless of such tragedies, the Government could seize no more than one shipment unless it could persuade the court—through what would amount virtually to a trial of the case—that the directions for use caused this harmless brew of weeds and water to become a highly injurious product. But unless the user were advised to fill a bathtub with *Banbar* and drown himself in it, it is difficult to conceive of anything he could be directed to do that would make it "imminently dangerous." For the menace of products like *Banbar*, remember, is not the positive injury they may inflict on the body, but what they *fail* to do when their misguided users rely on them for help. Under the Bailey Amendment, however, the Government would have to wait until the one seizure allowed had been decided against the product before it could seize any more shipments and so protect the public. And just as multiple seizures under the Vandenberg Amendment, consolidated into one action, could be tried in the manufacturer's home district, so too could this single seizure be transferred there for trial. And if that jurisdiction happened to be one like the southern district of New York, where the calendar is so crowded that the court is said to be more than a year behind in its work, the trial might be postponed for months, or

even years. Meanwhile, people would go on dying because of their faith in a worthless nostrum, while the Government would be even more helpless than under the present inadequate law to do anything about it.

Before this amendment came to a vote, however, Senator Bailey consented to a compromise whereby multiple seizures could be made when the Secretary of Agriculture (rather than the district court in each case) had "probable cause" to believe that the misbranding rendered the product "imminently dangerous." But even with this improvement, such as it is, the Bailey Amendment would still serve effectually to nullify the Government's right of seizure, which beyond all question has been the most powerful weapon in controlling dangerous patent-medicine frauds in the past.

Mr. James F. Hoge of the Proprietary Association, who is generally credited with thinking up this idea—at least it budded in his testimony at the S.2800 hearing on the Copeland Bill and came to full flower in the substitute measure which he drafted and which circulated under his by-line before Congressman Mead introduced it—argued in its defense at the House hearings on S. 5 that the Government not only would not have to prove fraud under the proposed law, but had the "splendid" new injunction procedure. But it might easily take just as long to get an injunction, particularly in an overworked court, and the process of getting it would be practically equivalent to trying the issue. Moreover, injunctions lie only against the manufacturer's future conduct and would in no way affect stocks which had already been shipped. Thus, if the manufacturer saw an injunction looming on his horizon, he could flood warehouses in every State with his product and thereafter do a purely intrastate business beyond the reach of the Federal Government.

The Bailey Amendment passed the Senate by a vote of forty-four to twenty-nine.* When the Copeland Bill in this emasculated

* See page 334 in the Appendix for the rollcall on the Bailey Amendment, the only index consumers have to the Senate line-up on this protective legislation.

lated form was taken up for consideration by a sub-committee in the House, the Department of Agriculture, through Mr. Campbell, proposed to repair the damage by an amendment which would permit more than one seizure when the misbranding was "grossly deceptive." This change was designed to take care of products like *Banbar*. Said Mr. Campbell:

"We do think that products of that sort should be removed from the market by seizure wherever found. We can prosecute the manufacturer criminally; we can get an injunction against further operations; but without that amendment we cannot remove that article from the market. . . .

"A manufacturer could put out a water atificially colored and label it as the best 4-year-old or 10-year-old bourbon whisky, aged in wood, and dress it up in a bottle to look like that, and he could flood the market with it, and unless the amendment I offered is accepted, he could get away with it . . . There are a great many circulating producers who stay in one place for 30 days and go somewhere else when the rent comes due. Agencies of that sort are particularly the ones to whom I think the President referred in his message to the Congress about the need for this law."

The Proprietary Association, of course, opposed the change. Up from Greensboro, North Carolina, came Mr. H. Smith Richardson of its executive committee—he is also chairman of the board of the Vick Chemical Company—to urge that the House pass S. 5 in the form approved by the Senate—

"at the earliest possible date . . . and especially without tampering with the Bailey Amendment."

Mr. Richardson's discussion of multiple seizures was one of the high spots of the hearing. Representative Kenney of New Jersey asked him if he knew of any case where the threat of seizure under the existing law had ever operated to the disadvantage of an honest manufacturer. His reply was to put in the record a letter from the Food and Drug Administration which his company had received during the influenza epidemic of 1929. This letter read as follows:

"The portion of your circular headed 'Colds are costly' implies that VapoRub constitutes a preventive for such serious infections as bronchitis, influenza, pneumonia, pleurisy, chronic catarrh, sinus trouble, and ear infections.

"In view of the above it is necessary for the labeling of this preparation to be so modified as to bring it into complete compliance with the requirements of the Federal Food and Drugs Act. However, this Administration will not proceed against shipments of your product made within 3 weeks after receipt of this communication. It is necessary, however, that this Administration be immediately informed as to the action you propose to take in order to forestall immediate appropriate legal action."

Such a warning before seizures were attempted was necessary on account of the fraud amendment, which requires the Government to prove that the manufacturer knows the curative claims he makes for his product are false. It would not be enough to show that this camphor-menthol-turpentine-eucalyptus salve, with all due regard for its virtues, was incapable of doing everything claimed for it. The health hazard in a product like *Vicks VapoRub* comes not from the product itself but from encouraging its users to place too much reliance on it at the expense of proper rest, diet, isolation and other hygienic precautions recommended by health authorities. The Public Health Service preaches that the thing to do with a cold is to put it to bed and not be a menace to the general public. But people who would have more sense than to fool around with *Pabst's O. K. Specific* or *Dr. Mixer's Cancer Cure* do not hesitate to treat themselves for "just a cold" and then, putting their faith in a proprietary remedy, run around spreading the infection, sapping their own vitality, and laying themselves open to possible serious consequences.

This aspect of the matter seems to have escaped Mr. Richardson, however. Since his odoriferous grease smeared on your chest would not of itself endanger your life, he saw no good reason why his *VapoRub* should be seized from coast to coast and his reputation damaged thereby, even if he was trying to

create excessive confidence in the product at the very height of an influenza epidemic.

The House Committee on Interstate and Foreign Commerce, as it happens, has a proud tradition of seeking impartially after facts, and the hearings on S. 5, under the admirable conduct of Chairman Chapman and other members of the sub-committee, assuredly upheld the custom with honor. Were it not for the gag on the press, as well as competition from the lobby investigation, which was going on at the same time, the information brought out in this study of the food-and-drug bill would have had streamer headlines. Typical of the sub-committee's thoroughness was its demand for the Food and Drug Administration's records on the *VapoRub* incident.

Mr. Richardson testified that he had modified his labeling in accordance with the law rather than risk multiple seizures. What he did not tell—possibly because he did not know it—was the fact that the Administration, having brought about a revision in the labeling of his product, then referred similar serious misrepresentations in the advertising to the Federal Trade Commission for such action as that body deemed appropriate. And in the records which the sub-committee called upon the Administration to furnish was a formal statement from the Commission advising Food and Drug officials that it

“—found no necessity for the exercise of those remedial powers granted by law to this Commission. The application for the issuance of a complaint, therefore, has been dismissed.”

More interesting still in the light it sheds on Mr. Richardson's endorsement of the Bailey Amendment and of Senator Clark's proposal to vest control of advertising in the Commission is another document in this collection. It is a memorandum dated October 12, 1932, of an interview between Mr. J. L. Hornor of the Commission and Dr. F. J. Cullen, at that time chief of the Administration's Drug Control, but more recently the general representative of the Proprietary Association. This report, which bears the signature of Dr. Cullen, reads as follows:

"Mr. J. L. Hornor . . . spoke of his recent visit to the Vick Chemical Co. and his conversation with Mr. H. S. Richardson.

"When he entered Mr. Richardson's office Mr. Hornor had before him some collateral advertising for 'Vick's VapoRub'. He decided that there was no use of preliminary discussion, so he went direct to the point and stated 'Mr. Richardson, your collateral advertising recommends this product as a preventive for influenza, pneumonia and sinus trouble, and certain of the claims indicate that the product is a cure for these diseases. Do you believe those statements to be true?' Mr. Richardson stated without any qualifications, that he did not. Mr. Hornor asked him if his collateral advertising was justified. Mr. Richardson stated: 'Oh, that does not amount to anything; that's just a little extravagant advertising'. Mr. Richardson admitted that the claims were false and misleading and said he would be willing to sign a stipulation to the Federal Trade Commission that such advertising would be discontinued at once. Mr. Hornor informed him that he could not enter into an agreement prior to the report of his investigation to the Commission, and that any such stipulations would have to be handled through them."

In striking contrast to the kind of support which the Bailey Amendment called forth was that which rallied to uphold the Department in its proposal that multiple seizures be permitted when the misbranding is "grossly deceptive." The National Congress of Parents and Teachers, comprising 22,441 local associations in 48 States, the District of Columbia, Hawaii and Alaska, at a convention in Miami in the summer of 1935 took specific action in opposition to the Bailey Amendment. This great organization, which more than any other represents a cross-section of American consumers, was one of the first groups of national scope to support the Copeland Bill. Mrs. William T. Bannerman, legislative chairman, appeared at the hearings on S. 1944 in 1933 and at every hearing on the Copeland Bill since that time to plead the consumer's cause. Speaking for one and three-quarter million men and women, Mrs. Bannerman urged the House sub-committee to adopt the Department's amendment. She urged too that advertising be enjoined to be

truthful; that control of it be vested in the Food and Drug Administration rather than the Federal Trade Commission; that the listing of ingredients be required on the labels of foods, drugs and cosmetics; that quality standards and grade labeling be authorized under the new law; that alcohol be recognized in it as a habit-forming narcotic and the quantity or proportion used in any drug product be declared on the label; that the administrative provisions of the law be free from subtleties and complications which would hamper enforcement; and that the exportation of foods, drugs and cosmetics which are adulterated under our laws be forbidden.

The same recommendations were pressed by representatives for eleven other big national organizations, most of which have been working since 1933 for the passage of the Copeland Bill in a form that would insure consumer protection. These consumer groups were:

- American Association of University Women
- American Dietetic Association
- American Home Economics Association
- American Nurses' Association
- Girls' Friendly Society
- Homeopathic Medical Fraternity
- Medical Women's National Association
- National Board of the Young Women's Christian Association
(National Congress of Parents and Teachers)
- National Council of Jewish Women
- National League of Women Voters
- National Women's Trade Union League

Representatives of these organizations constitute a sub-committee of the Women's Joint Congressional Committee, which, under the leadership of Miss Alice Edwards of the American Home Economics Association, has followed the developments on this legislation from day to day and studied the significance of each change as it was made. Indeed, the American Home Economics Association, a professional group made up of college-trained home economists occupying positions as teachers in schools and colleges, leaders of rural extension work, home-

makers, social workers and managers of institutions, was one of the consumer organizations that gave valuable assistance when the bill was being drafted. And it officially endorsed S. 1944 shortly after the bill was introduced in Congress. With almost no funds to work with—especially as compared with the vast war chests available to opponents of the measure—with the press, except for the liberal weeklies and a scattering of newspapers, almost entirely closed to them and their own official magazines and news letters practically the only means they have had of informing consumers of what was taking place, these women's organizations have done most of the fighting for a strong consumer law.

The National Women's Christian Temperance Union, though not a member of the group, nevertheless has been working with it for the enactment of the Copeland Bill, as has also the District of Columbia Federation of Women's Clubs. The General Federation (the national organization), which played so important a part in the passage of the original Food and Drugs Act, unanimously endorsed the principles of S. 2800 at the Hot Springs convention in 1934. This action, it is pleasant to report, was in a large measure due to the campaigning of Mrs. Harvey W. Wiley, widow of the great crusader. Mrs. Wiley was one of the first to enlist in the fight to strengthen and modernize her husband's famous Pure Food Law, and she has continued to be one of the most active proponents of the new legislation.

Considering that the members of these women's groups number millions, it is not surprising that every now and then some woman bobs up who is willing to exploit her real or supposed influence with them (or with the readers of the women's magazines) either to foment prejudice against the Copeland Bill or to create the impression that women are not in favor of it. Typical of efforts of this kind was the propaganda sent to local clubs by the Women's Committee for Consumer Protection, which had every appearance of emanating from the General Federation's headquarters. But the address of the committee was—and how appropriately!—the employees' entrance of Mr. Frank Blair's *Castoria* factory.

The women in these great organizations have not been fooled by this sort of thing. On the contrary! They have been getting the facts from their authorized representatives and they know exactly what has been going on. With increased wonder and alarm, as Mrs. Alvin Barber of the American Association of University Women told the House sub-committee, they have watched the paring down and progressive weakening of the first consumer-conscious draft to the final form passed by the Senate, which they know is very far indeed from the original intent of this legislation. They have become increasingly aware of the selfish and effective pressure that has been brought to bear in reshaping the bill, to the end that much of the protection most important to consumers has been ruthlessly eliminated. Under the circumstances they are hardly likely to be taken in by propaganda issuing from those responsible for such changes as those which Mrs. Barber recounted:

"The list of incurable diseases for which so-called 'cures' can not be sold has been cut from forty-two to nine.

"The restriction against advertising a mere palliative as a cure has been removed.

"Standards of strength for germicides and antiseptics have been eliminated.

"There are no quality standards for food; there is no grade labeling.

"There are no minimum fines; fines have been reduced.

"Protection against cumulative poisons, stimulant-depressants and sedatives has been removed.

"There is a complete reversal of the original ethical stand on the quality of exports.

"Weakening administrative changes have been made.

"There is the shocking restriction of multiple seizures to those products only that are 'imminently dangerous to health.'"

The women of the United States are concerned about the fate of this bill. Make no mistake about it. Mrs. Harris T. Baldwin, vice-president of the National League of Women Voters, whose work takes her into every State in the Union, told the House sub-committee that everywhere she goes women

she knows and women she never saw before come up to ask anxiously: "Mrs. Baldwin, what is happening to the food-and-drug bill?"

She can tell them that the Copeland Bill, with the Bailey and Vandenberg amendments, was passed by the Senate on May 8, 1935, in twelve minutes and without a record vote, the members of that distinguished assembly apparently being unwilling to let their constituents know where they stood on so controversial a measure; that it was then referred to the House Committee on Interstate and Foreign Commerce, a sub-committee of which held prolonged hearings during the summer. She might tell them too that in the last few days before Congress adjourned lobbyists for the industries were frantically scouring the House for signatures to a petition which, with enough names on it, would result in the discharge of the fair-minded sub-committee that had been considering food-and-drug legislation and force the Copeland Bill out on the floor, where it might be rushed through in the emasculated form agreeable to them, if not to consumers. But of course she would not be able to tell them whether or not the President would be willing to sign such a measure.

She can tell them that shortly after adjournment, *Drug Trade News* set to work to round up the opposition:

"Meanwhile, each week evidences increasing disposition on the part of different factors in the drug and cosmetic industries to show opposition to the measure. This disposition is almost beginning to correspond to the strong display of opposition that prevailed two years ago when revision of the Food and Drugs Act was first proposed under the auspices of Rexford Tugwell . . . Between now and the time Congress reopens in January, the opinion of the industry must be definitely crystallized on this vital matter."

And she can explain that the "crystallizing" has been carried on by means of a coupon in each issue which the manufacturer or druggist fills out, so that the editor can announce triumphantly from fortnight to fortnight that 77 per cent.—or 85 per cent.—of the trade opposes the Copeland Bill.

She can tell them that the Jacobs forces in the drug industry (the Institute of Medicine Manufacturers and the United Medicine Manufacturers, which have recently been amalgamated for greater strength in fighting the bill) are still working desperately to have control of advertising confined to the Federal Trade Commission under the same inadequate cease-and-desist procedure as at present.

She can say that the manufacturers of poisonous cosmetics, particularly the hair-dye people, are raising heaven and earth to destroy the provisions applying to them, and their lobbyists are threatening that through 60,000 beauty parlors serving 40,000,000 women they have enough political power to bring about a change in the Constitution if necessary to defeat the bill—as well as changes in the personnel of the Food and Drug Administration! She can also show them the petition that is being circulated through the beauty shops and explain how the women who endorse it are signing away their protection against the vicious “beautifiers” which may maim, blind and destroy them.

If they should ask her about that rumor that Mr. Campbell is about to “resign” as Chief of the Food and Drug Administration so that Dr. Tugwell can take his place and force the original “Tugwell Bill” on the industries, she can remind them that similar tales were in circulation in the spring of 1933 when the bill was first introduced. Should they ask her who starts these canards, she can answer with another question: Who seems to be most anxious to have the Copeland Bill enacted in the form in which it passed the Senate?

And then, if she meets any of the women who are so enraged about the staining of off-color oranges with coal-tar dyes to give them the deep hue of California’s best, Mrs. Baldwin can tell them that at least some of the members of the Florida delegation in Congress are trying to get sanction for the citrus growers of their State to continue the practice—but without having to stamp “Color Added” on each piece of fruit, as the Food and Drug Administration insists shall be done in order that consumers who wish to avoid painted oranges may do so.

As for the status of canned fruits and vegetables under the

proposed legislation, Mrs. Baldwin can tell the housewives she meets that the canners and the publishers of the women's magazines are still hovering warily in the background to see that quality standards and label grades do not slip back into the bill.

While she is talking with homemakers, she might mention that Mr. Charles Wesley Dunn, reinforced by Democratic politicians from New York State, descended upon Chairman Rayburn of the House Committee on Interstate and Foreign Commerce to urge three amendments to the Copeland Bill which would be of special interest to them; that from the reports of his interview which Mr. Dunn gave out to the press, he wants the ingredients of proprietary foods listed with the Secretary of Agriculture (who knows them anyhow) instead of printed on the label where the housewife could see what she was getting; that he wants a "board of review" to check on the decisions of the Food and Drug Administration; and that he wants official samples of foods, drugs and cosmetics divided with the manufacturer. If she knew about the McCormick pepper case, Mrs. Baldwin could explain that Mr. Dunn, unable to reconcile himself to the verdict in that case, has always consoled himself with the belief that if he could have had a chemist analyze the official sample, no quinine would have been found. And she could quote Mr. Campbell as saying to a reporter from *Drug Trade News* that this requirement and the board of review would serve no other purpose than to delay and hamper enforcement.

To those who wish to know how the American Medical Association stands in respect to the Copeland Bill Mrs. Baldwin can report that the association approves the bill in so far as it extends control to devices, cosmetics and advertising, but believes the provisions relating to drugs and advertising should be strengthened.

Yet with all its defects (she can say) the Copeland Bill is not so bad as opponents on the extreme left would have you believe. Their opinions are naturally colored by their political philosophy, with which no purely remedial legislation can be entirely harmonious. One does not have to accept their philosophy, how-

ever, in order to recognize the value of many of their criticisms. They may, indeed, be entirely right. But we are still living under a capitalist system and unless we propose to overthrow that system we must, if we are going to correct such abuses as those which flourish in the food, drug and cosmetic industries, be realistic about them. To those who insist on a perfect bill or none at all, Mrs. Baldwin might recommend a study of the industries' strategy, pointing out that these lobbyists, opposed at heart to any legislation, have nevertheless adroitly molded the Copeland Bill to their own advantage. However, a Congressional investigation into their tactics, to which extremists, for various motives, would be willing to sacrifice the pending legislation rather than amend it, would reveal few, if any, facts not already known on Capitol Hill. For such information to be of any constructive value, it would have to be brought to the attention of the public, and certainly our national press showed no disposition to publish any of the damaging testimony of food-and-drug lobbyists at the House hearings last summer. Friends of consumer protection can have no objections to such an investigation; neither can they build much hope upon it.

That the Copeland Bill has retained so many worthwhile features has been due to the stubborn insistence of the men whom Senator Copeland chose as his mentors (to borrow Senator Clark's description of them)—Mr. Charles W. Crawford of the Food and Drug Administration and Mr. Ole Salthe, who was in charge of food and drug enforcement under the Senator when he was health commissioner in New York City.

Meanwhile *Drug and Cosmetic Industry* is warning the trade that

"Constant watch must be kept by those in the industry to see that the influence of the Department of Agriculture is not used to have the bill introduced in a more drastic form. The progress which has been made by the industry in having the bill amended to the form in which it passed the Senate must not be lost. This is the form in which the major interests of the industries affected approved the bill, and it is the form which the Department of Agriculture must continue to accept."

And Mr. Warren Burgess, president of the Knox Company of Kansas City, Missouri (makers of *Cystex*), who as an officer in two of the largest associations claims to speak for the entire drug industry, is shouting: "No one wants this bill. . . ."

But there are other kinds of letters going to the members of Congress and the White House. One of the latter will do—we recognize the name from what we read in Chapter Two:

"DEAR MR. PRESIDENT:

"I am writing this letter for a certain reason, and that is because I don't want anything happen to other ladies like it has happened to my mother. My mother suffered a great deal by the cause of some poison which was put in the dye and then applied to the lashes.

"My mother has been trying to put a new law across so that no more poison will be put in this dye. The dye is made by the Lashlure Co. in California. My mother is totally blind and we want you to please help us to get the law across.

"I am ten years old, and in the fifth grade. My dog was killed lately, but I still have my cat. I will close now, and I hope you will help my mother.

"Sincerely yours,

"HAZEL FAY BROWN."

APPENDICES

A

LEGISLATIVE HISTORY OF THE COPELAND FOOD AND DRUGS BILL

June 12, 1933—Senator Royal S. Copeland of New York introduced the so-called "Tugwell Bill," which was assigned the number Senate 1944 and referred to the Committee on Commerce.

June 13, 1933—Representative William I. Sirovich of New York attached the Copeland Bill as a rider to his trademark bill, House of Representatives 6110.

December 7 and 8, 1933—A sub-committee consisting of Senators Copeland, McNary and Caraway held public hearings on S. 1944.

January 4, 1934—Senator Copeland introduced a radically revised draft, S. 2000, which was subsequently changed still further in committee.

January 4, 1934—Representative Loring M. Black of New York introduced H. R. 6376, written by Dr. James H. Beal and sponsored by the drug industry.

January 16, 1934—The Black Bill was introduced in the Senate by Senator Hubert D. Stephens of Mississippi ("by request") as S. 2355. This substitute for the Copeland Bill was exposed by the *St. Louis Post-Despatch* as a "transparent fraud," and though publicized by patent-medicine press agents received no further official notice.

January 29, 1934—Representative Sirovich introduced a bill of his own composition, H. R. 7426.

February 14, 1934—Representative Virginia Jenckes of Indiana introduced H. R. 7964, written by Mr. Charles Wesley Dunn, counsel for the Associated Grocery Manufacturers of America. The week before it was introduced, a member of the editorial staff of the *Ladies' Home Journal* (Curtis Publishing Company) urged a group of clubwomen in New York City to support the "Dunn-Curtis Bill."

February 19, 1934—Another version of the Copeland Bill, S. 2800, was introduced in the Senate, supplanting S. 2000.

February 21, 1934—The Jenckes Bill was sponsored in the upper house by Senator Pat McCarran of Nevada, as S. 2858.

February 27, 1934—Representative Patrick J. Boland of Pennsylvania introduced H. R. 8316, a bill written by Consumers' Research.

February 27 to March 3, 1934—Hearings on S. 2800 were held before the full Committee on Commerce.

May 16, 1934—S. 2800 came on the floor of the Senate for an hour's discussion, and then lapsed into oblivion.

January 4, 1935—Senator Copeland introduced a new version, S. 5, differing from S. 2800 in form rather than substance, but incorporating most of the changes that had been made since S. 1944 was introduced.

January 10, 1935—Senator McCarran revived his bill as S. 580.

January 16, 1935—Representative James M. Mead of New York introduced H. R. 3972, prepared by Mr. James F. Hoge, counsel for the Proprietary Association.

March 2, 9 and 10, 1935—Senators Bennett Champ Clark of Missouri (chairman), Copeland and Gibson, acting as a subcommittee, held public hearings on S. 5. Messrs. Hoge and Dunn appeared in behalf of their brain-children, which, however, received no other recognition.

March 22, 1935—President Franklin D. Roosevelt sent a special message to Congress expressing the "hope" that legislation for

the benefit of consumers and honest manufacturers would be enacted.

March 26, 1935—The Senate Committee on Commerce reported S. 5 favorably, but after many revisions had been made.

April 1, 1935—Over the protests of Senators Clark and Vandenberg that the bill was being rushed through without sufficient attention in committee, Senator Copeland obtained the floor to discuss it, but with the understanding that there would be no vote on it that day.

April 2, 1935—The Vandenberg Amendment permitting seizures to be tried in the judicial district of the claimant's choice was adopted.

April 3, 1935—Senator Arthur H. Vandenberg of Michigan proposed to substitute the variation clause of the existing law for the language proposed in S. 5.

April 3, 1935—Senator Clark proposed an amendment giving the Federal Trade Commission control of advertising; Senator Josiah W. Bailey of North Carolina submitted three amendments which would restrict the Food and Drug Administration's authority to make seizures of misbranded products.

April 4, 1935—A minority report opposing S. 5 was filed by Senators Clark, Bailey, Vandenberg, Donahey, Guffey and Bachman of the Committee on Commerce.

April 8, 1935—The Bailey Amendments were adopted. A move to send the bill back to committee was sidetracked, and it was returned to the calendar.

April 23, 1935—Opponents and supporters of the bill, according to *Food Field Reporter* of May 6, conferred informally on a compromise.

April 24, 1935—Senator Copeland asked "unanimous consent that the amendments which have been agreed upon by the various persons interested in the bill" be adopted so that the bill could be printed as amended.

April 28, 1935—S. 5 was passed in twelve minutes and without a record vote.

July 10, 1935—Representative Sirovich revived his bill as H. R. 8805.

July 23, 1935—The Dunn Bill was reintroduced by Mrs. Jenckes as H. R. 8941.

July 22, 24, 25, 29, 30 and 31; August 6, 7, 8, 9, 10 and 12, 1935—A sub-committee composed of Representative Virgil Chapman of Kentucky as chairman, and Representatives Cole of Maryland, Kenney of New Jersey, Reece of Tennessee, and Wolfenden of Pennsylvania, members of the Committee on Interstate and Foreign Commerce in the House, held public hearings on S. 5 as passed by the Senate.

NOTE. As this book goes to press, S. 5 is under consideration by the House Committee on Interstate and Foreign Commerce. When and if this committee reports the bill favorably, it will be ready for action on the floor of the House. Should it be passed by the House, it would then go to a conference committee, which would seek to reconcile differences in the Senate and House versions. This accomplished, it would need only the President's signature to become law. If, however, it should fail of passage in the House in 1936, an entirely new food-and-drugs bill would have to be introduced in the next Congress, and the whole routine of hearings, floor debate, etc. would have to be repeated.

B

THE PRESIDENT'S MESSAGE TO CONGRESS

President Roosevelt in a special message to Congress urged the enactment of a new Food and Drugs Act. The message reached Congress on March 22, 1935, the very day that the Senate Committee on Commerce reported favorably on the

Copeland Bill in its S. 5 version. The text of the President's message follows:

"Every enterprise in the United States should be able to adhere to the simple principle of honesty without fear of penalty on that account. Honesty ought to be the best policy, not only for one individual or one enterprise but for every individual and every enterprise in the Nation. In one field of endeavor there is an obvious means to this end which has been too long neglected: the setting up and careful enforcement of standards of identity and quality for the foods we eat and the drugs we use, together with the strict exclusion from our markets of harmful or adulterated products.

"The honor of the producers in a country ought to be the invariable ingredient of the products produced in it. The various qualities of goods require a kind of discrimination which is not at the command of consumers. They are likely to confuse outward appearance with inward integrity. In such a situation as has grown up through our rising level of living and our multiplication of goods, consumers are prevented from choosing intelligently, and producers are handicapped in any attempt to maintain higher standards. Only the scientific and disinterested activity of government can protect this honor of our producers and provide the possibility of discriminating choice to our consumers.

"These principles have long been those on which we have founded public policy. But we have fallen behind in their practical application. No comprehensive attempt at reform in the regulation of commerce in food and drugs has been made since 1906. I need not point out to you how much has happened since that time in the invention of new things and their general adoption, as well as in the increase of advertising appeals. Because of these changes loopholes have appeared in the old law which have made abuses easy.

"It is time to make practical improvements. A measure is needed which will extend the controls formerly applicable only to labels to advertising also; which will extend protection to the trade in cosmetics; which will provide for a cooperative method of setting standards and for a system of inspection and enforcement to reassure consumers grown hesitant and doubtful; and

which will provide for a necessary flexibility in administration as products and conditions change.

"I understand this subject has been studied and discussed for the last 2 years and that full information is in the possession of the Congress.

"No honest enterpriser need fear that because of the passage of such a measure he will be unfairly treated. He would be asked to do no more than he now holds himself out to do. It would merely make certain that those who are less scrupulous than I know most of our producers to be cannot force their more honest competitors into dishonorable ways.

"The great majority of those engaged in the trade in food and drugs do not need regulation. They observe the spirit as well as the letter of existing law. Present legislation ought to be directed primarily toward a small minority of evaders and chiselers. At the same time even-handed regulation will not only outlaw the bad practices of the few but will also protect the many from unscrupulous competition. It will besides, provide a bulwark of consumer confidence throughout the business world.

"It is my hope that such legislation may be enacted at this session of the Congress."

C

ROLLCALL ON THE BAILEY AMENDMENT

YEAS—44

Adams (D)	Carey (R)	Hatch (D)	Reynolds (D)
Austin (R)	Clark (D)	King (D)	Russell (D)
Bachman (D)	Connally (D)	Logan (D)	Schall (R)
Bailey (D)	Copeland * (D)	Lonergan (D)	Schwollenbach (D)
Bankhead (D)	Donahay (D)	McGill (D)	Smith (D)
Barbour (R)	Duffy (D)	McKellar (D)	Steiwer (R)
Bone (D)	George (D)	Metcalf (R)	Trammell (D)
Borah (R)	Gore (D)	Minton (D)	Truman (D)
Bulkley (D)	Guffey (D)	O'Mahoney (D)	Tydings (D)
Burke (D)	Hale (R)	Pittman (D)	Vandenberg (R)
Byrnes (D)	Hastings (R)	Radcliffe (D)	White (R)

* Senator Copeland's apparent vote for the Bailey Amendment was a parliamentary move to enable him to call for a reconsideration of the vote.

NAYS—29

Barkley (D)	Fletcher (D)	Murphy (D)	Thomas, Okla. (D)
Bilbo (D)	Frazier (R)	Murray (D)	Thomas, Utah (D)
Black (D)	Gerry (D)	Neely (D)	Townsend (R)
Brown (D)	Gibson (R)	Norris (R)	Wagner (D)
Bulow (D)	Hayden (D)	Nye (R)	Wheeler (D)
Costigan (D)	Johnson (R)	Pope (D)	
Couzens (R)	La Follette (Prog)	Robinson (D)	
Dieterich (D)	McNary (R)	Sheppard (D)	

NOT VOTING—22

Ashurst (D)	Davis (R)	Long (D)	Overton (D)
Byrd (D)	Dickinson (R)	Maloney (D)	Shipstead (F-L)
Capper (R)	Glass (D)	McAdoo (D)	Van Nuys (D)
Caraway (D)	Harrison (D)	McCarran (D)	Walsh (D)
Coolidge (D)	Keyes (R)	Moore (D)	
Cutting † (R)	Lewis (D)	Norbeck (R)	

† The late Senator Cutting, who was paired with Senator Glass, announced that if he were at liberty to vote, he would vote "nay."

D

CONSUMERS' THIRTY "MUSTS" IN A NEW
FOOD AND DRUGS ACT

Those most familiar with the problems of protecting consumers against dangerous or fraudulent foods, drugs, cosmetics and therapeutic devices agree that no new Federal law will be adequate to curb abuses in these industries unless, in addition to retaining all the protective features of the Food and Drugs Act of 1906, it also

- 1—covers cosmetics and therapeutic devices;
- 2—prohibits false advertising;
- 3—requires fully informative labeling on all products within its jurisdiction;

- 4—requires all ingredients to be listed by their common names on the labels of foods, drugs and cosmetics;
- 5—outlaws injurious cosmetics;
- 6—eliminates the fraud joker of the Wiley law;
- 7—requires the manufacturer of drug products sold directly to the public to be licensed;
- 8—prohibits traffic in drugs and devices that are dangerous to health under the conditions of use prescribed in the labeling or advertising;
- 9—requires habit-forming drugs to bear warning labels;
- 10—prohibits the advertising to the public of drugs for the treatment of diseases in which self-medication is futile or especially dangerous;
- 11—sets up special protection against drugs liable to deterioration;
- 12—requires that claims of therapeutic effect rest squarely on demonstrable scientific facts;
- 13—requires official drugs to conform to the standards of strength, quality and purity set up by the *United States Pharmacopoeia* and *National Formulary* or to show clearly on the label wherein they vary;
- 14—requires that official drugs recognized by the *United States Pharmacopoeia* and the *National Formulary* be packaged and labeled as prescribed by these authorities;
- 15—requires that antiseptics possess germicidal power;
- 16—provides for the promulgation of standards of identity and of quality, with the grades declared on the label;
- 17—eliminates the distinctive-name joker of the Wiley law;
- 18—prohibits traffic in food that is dangerous to health;
- 19—prohibits the addition of poison to food unless it is required or cannot be avoided in production, and in such cases authorizes its limitation to the point of safety;
- 20—authorizes emergency license control of factory operations when public health cannot be protected otherwise;
- 21—forbids traffic in confectionery containing metallic trinkets or other inedible substances, which have been found to be a menace to the health of children;

- 22—forbids the use of uncertified and impure coal-tar colors in food, drugs and cosmetics;
- 23—proscribes the use of poisonous containers for food, drugs and cosmetics;
- 24—proscribes slack-filling and the use of deceptive containers;
- 25—requires that food, drugs and cosmetics be prepared and handled under sanitary conditions;
- 26—provides for factory inspection and the procurement of records needed to prove Federal jurisdiction;
- 27—provides increased penalties for violations;
- 28—authorizes injunctions against chronic violations;
- 29—in no way hampers prompt and effective seizure to prevent the distribution of adulterated goods and goods so misbranded as to involve danger to health or deception of consumers;
- 30—provide permanent annual appropriation of five million dollars for enforcement similar to that under the Meat Inspection Act.

E

EYELASH AND BROW DYE ELIMINATION ENDORSEMENT

So great is the hazard in poisonous cosmetics, especially those for use on the eyelashes and brows, that few if any insurance companies now issue policies covering claims against beauty parlors for such injuries. The following "elimination endorsement" is typical:

EYELASH AND BROW DYE ELIMINATION ENDORSEMENT

(For Beauty Parlor Public Liability Policies)

In consideration of the premium for which the undermentioned Policy is written, it is hereby understood and agreed by and between the Company and the Assured, that said Policy

shall not cover loss on account of injuries or death suffered or alleged to have been suffered by any person or persons caused by the use or application of any eyelash or eyebrow dye (1) which contains (a) paraphenylene diamine or any derivative thereof, or (b) aniline or any derivative thereof, or (c) any derivative of coal tar, or (d) silver or other metallic salts; or (2) with which either (a) pyrogalllic acid or (b) ammonia or (c) any fluid containing acetanilid, is used as a developer or oxidizing agent.

This endorsement shall take effect at 12:01 A. M. , 1933, Standard Time at the Assured's address given in said Policy.

Nothing herein contained shall be held to vary, waive, alter or extend any of the terms, conditions, agreements or declarations of the said Policy other than as above stated.

This endorsement is hereby attached to and made a part of Policy No. issued by the PHOENIX INDEMNITY COMPANY, New York, N. Y., to——[Name of Beauty Shop]——

Countersigned:

.....

Agent.

(Signed)
President

F

COST DATA ON COSMETICS

The following cost data are based upon partial analyses made by the Bureau of Health of the State of Maine, under the direction of George H. Coombs, M. D. They represent a list of such ingredients and such percentages as would, if combined, produce a preparation similar to that specified in each case. The cost of the ingredients was estimated at their retail price in pound quantities according to the latest information available

Coty Dusting Powder

Coty Rouge Refill

Dye — Apparently Geranium Lake and Tetrabromfluorescein.

Coty Face Powder

Serial No. T-23		SELLING PRICE....\$.75	
		APPROXIMATE	
		COST	
57.9 %	Talc.....	0.985 oz. at \$0.0087	oz..... .0085
16.67%	ZnO.....	0.283 oz. at .016	oz..... .0045
10.08%	Zn Stearate.....	0.17 oz. at .026	oz..... .0042
1.66%	Calcium Carbonate.....	0.27 oz. at .0087	oz..... .0003
6.5 %	Starch.....	0.11 oz. at .012	oz..... .001
	Perfume and Dye.....	at 3.00	oz..... .005
	Bottle of Perfume.....	at .36	oz..... .046
	Box.....		.05
		<hr/>	
		1.818 oz. APPROX. COST AT RETAIL. 0.1195	

Elizabeth Arden Face Powder

Serial No. T-24		SELLING PRICE...\$3.00	
		APPROXIMATE	
		COST	
71.45%	Talcum.....	3.863 oz. at \$0.0087	oz..... .0326
2.56%	Calcium Carbonate....	.146 oz. at .0087	oz..... .0013
11.43%	Zinc Oxide.....	.652 oz. at .016	oz..... .0104
11.00%	Starch.....	.627 oz. at .0125	oz..... .0078
0.1 %	Perfume.....	.057 oz. at 3.00	oz..... .171
	Dye.....	at 2.50	oz..... .005
	Outer Box.....		.01
	Inner Box.....		.15
		5.345 oz. APPROX. COST AT RETAIL.	0.3381

5.345 oz. APPROX. COST AT RETAIL. 0.3381

Elizabeth Arden Venetian Lip Paste

Serial No. T-25		SELLING PRICE...\$1.00	
		APPROXIMATE COST	
20 %	Beeswax.....	.008 oz. at \$0.045	oz..... .0004
15 %	Lanolin.....	.005 oz. at .024	oz..... .0001
50 %	Petrolatum.....	.0175 oz. at .038	oz..... .0006
1 %	Perfume.....	.0003 oz. at 3.00	oz..... .0011
5.01 %	Dye.....	.0017 oz. at 1.00	oz..... .0017
9.0 %	Spermaceti.....	.0032 oz. at .047	oz..... .0001
	Inner box.....		.015
	Outer box.....		.005

.0357 oz. APPROX. COST AT RETAIL. 0.0240

Dye — Apparently Tetrabromfluorescein and possibly Geranium Lake.

Elizabeth Arden Dusting Powder Venetian

Serial No. T-26		SELLING PRICE...\$3.00	
		APPROXIMATE	
		COST	
72.5 %	Talc.....	9.42	oz. at \$0.0087 oz.....
0.635 %	ZnO.....	0.08	oz. at .016 oz.....
0.1 %	Perfume approx.....	.072	oz. at 3.00 oz.....
2.4 %	Starch.....	.312	oz. at .012 oz.....
18.72 %	Boric Acid.....	1.36	oz. at .015 oz.....
	Box and puff.....		
			.15

II.244 oz. APPROX. COST AT RETAIL. 0.466

Elizabeth Arden Venetian DermateX Depilatory

Serial No. T-27		SELLING PRICE...\$2.00 APPROXIMATE COST			
3.45%	Calcium Sulphide.....	0.08	oz. at \$0.56	lb.....	.0028
55%	Wheat Starch.....	1.28	oz. at .20	lb.....	.016
40.9%	Zinc Oxide.....	0.953	oz. at .27	lb.....	.016
	Perfume (Est.).....	.01	oz. at 3.00	oz.....	0.0056
104 gm.	Bottle.....				.15

2.323 oz. APPROX. COST AT RETAIL. 0.1904

Harriett Hubbard Ayer Special Astringent

Serial No. T-28

SELLING PRICE...\$1.75

APPROXIMATE

COST

52 %	Alcohol.....	6.24	oz. at \$0.50	gal.....	.0249
1 %	Oil.....	0.12	oz. at .30	lb.....	.002
0.358%	Alum.....	0.043	oz. at .14	lb.....	.0003
46.64%	Distilled Water.....	5.59	oz. at .15	gal.....	.0056
	Perfume.....	Trace	at 3.00	oz.....	.0056
	Bottle.....				.0500

11.993 oz. APPROX. COST AT RETAIL 0.0884

Harriett Hubbard Ayer Cream Rouge

Serial No. T-29

SELLING PRICE...\$.55

APPROXIMATE

COST

	Case.....				.030000
20 %	Beeswax.....	.007	oz. at \$0.045	oz.....	.000315
15 %	Lanolin.....	.00525	oz. at .024	oz.....	.000126
27.2 %	Petrolatum.....	.0095	oz. at .038	oz.....	.000362
17.8 %	Dye.....	.00623	oz. at 1.00	oz.....	.00623
1 %	Perfume.....	.00035	oz. at 3.00	oz.....	.00105
9 %	Spermaceti.....	.00315	oz. at .047	oz.....	.000148

.03148 oz. APPROX. COST AT RETAIL. 0.038231

Dye — Apparently Crimson Lake, Lithol Toner, and Tetrabromfluorescein, or Geranium Lake, and Tetrabromfluorescein, with slight amount Maroon Lake.

Harriett Hubbard Ayer Face Powder

Serial No. T-30

SELLING PRICE...\$.60

APPROXIMATE

COST

66.15%	Talcum.....	1.5876	oz. at \$0.0087	oz.....	.0138
1.09%	Calcium Carbonate.....	.0262	oz. at .0087	oz.....	.0002
16.01%	Zinc Oxide.....	.3842	oz. at .016	oz.....	.0061
10.88%	Starch.....	.2611	oz. at .0125	oz.....	.0033
0.1 %	Perfume.....	.0024	oz. at 3.00	oz.....	.0072
	Dye.....				.005
	Box.....				.030

2.2615 oz. APPROX. COST AT RETAIL 0.0656

Harriett Hubbard Ayer Ayeristocrat Bath Powder

Serial No. T-31

SELLING PRICE...\$1.65

APPROXIMATE

COST

95 %	Talc.....	9.69	oz. at \$0.0087	oz.....	.0843
0.068%	Zinc Oxide.....	.007	oz. at .016	oz.....	.0001
0.623%	Calcium Carbonate.....	.064	oz. at .0087	oz.....	.0005
3.88%	Boric Acid.....	.399	oz. at .015	oz.....	.005
0.1 %	Perfume Approx.....	.01	oz. at 3.00	oz.....	.03
	Box.....				.10

10.170 oz. APPROX. COST AT RETAIL. 0.2199

Primrose House Skin Freshener

Serial No. T-36

SELLING PRICE...\$.85
APPROXIMATE
COST

8	%	Alcohol.....	0.32	oz. at \$0.50	gal.....	.0013
1	%	Boric Acid.....	0.04	oz. at .24	lb.....	.0006
	%	Distilled Water.....	3.64	oz. at .15	gal.....	.0036
	%	Perfume and Color.....	Trace	at 3.50	oz.....	.005
	%	Bottle.....				.05

4.00 oz. APPROX. COST AT RETAIL. 0.0605

Helena Rubenstein Face Powder

Serial No. T-37

SELLING PRICE...\$1.00
APPROXIMATE
COST

72.9	%	Talcum.....	1.968	oz. at \$0.0087	oz.....	.0171
9.29	%	Calcium Carbonate.....	.251	oz. at .0087	oz.....	.0022
4.62	%	Zn Stearate.....	.125	oz. at .0260	oz.....	.0033
8.19	%	Zn Oxide.....	.22	oz. at .0160	oz.....	.0035
2.88	%	Starch.....	.0777	oz. at .0125	oz.....	.0010
0.1	%	Perfume.....	.0027	oz. at 3.00	oz.....	.0081
	%	Dye used (ochre).....				.005
	%	Inner Box.....				.05
	%	Outer Box.....				.01

2.6444 oz. APPROX. COST AT RETAIL. 0.10

Springtime in Paris Lipstick (Medium)

Serial No. T-13

SELLING PRICE...\$1.25
APPROXIMATE
COST

15	%	Beeswax.....	.021	oz. at \$0.045	oz.....	.00095
10	%	Dye.....	.0141	oz. at 1.00	oz.....	.01410
15	%	Ceresine.....	.021	oz. at .038	oz.....	.00079
30	%	Petrolatum.....	.042	oz. at .038	oz.....	.00160
1	%	Perfume.....	.0014	oz. at 3.00	oz.....	.00420
9	%	Spermaceti.....	.0127	oz. at .047	oz.....	.00050
10	%	Paraffin.....	.0141	oz. at .022	oz.....	.00031
10	%	Lanolin.....	.0141	oz. at .024	oz.....	.00034
	%	Case.....				.05

.1404 oz. APPROX. COST AT RETAIL. 0.07279

Dye — Apparently Tetrabromfluorescein, and Red Lake.

Bourjois Sales Corp. Lipsticks (Light-Brilliant)

Serial No. T-11 and T-12

SELLING PRICE...\$.55

APPROXIMATE

COST

15	%	Beeswax.....	.0105 oz. at \$0.045	oz.....	.00047
10	%	Dye.....	.007 oz. at 1.00	oz.....	.00700
15	%	Ceresine.....	.0105 oz. at .038	oz.....	.00040
30	%	Petrolatum.....	.0210 oz. at .038	oz.....	.00080
1	%	Perfume.....	.0007 oz. at 3.00	oz.....	.00210
9	%	Spermaceti.....	.0063 oz. at .047	oz.....	.00029
10	%	Paraffin.....	.007 oz. at .022	oz.....	.00015
10	%	Lanolin.....	.007 oz. at .024	oz.....	.00017
		Case.....			.02000

.0700 oz. APPROX. COST AT RETAIL. 0.03138

No. T-11-Dye — Apparently Tetrabromfluorescein and Geranium Lake.

No. T-12-Dye — Apparently Tetrabromfluorescein and Red Lake.

Bourjois Sales Corp. Poudre Java (Rachel)

Serial No. T-10

SELLING PRICE...\$.50

APPROXIMATE

COST

77	%	Talcum.....	2.695 oz. at \$0.0028	oz.....	.0075
18.19	%	Zinc Oxide.....	.6367 oz. at .016	oz.....	.0102
		Dye and Perfume.....			.05
		Box.....			.03

3.3317 oz. APPROX. COST AT RETAIL. 0.0977

(Bourjois Sales Corp.) Evening in Paris Perfume

Serial No. T-9

SELLING PRICE...\$2.75

APPROXIMATE

COST

		Perfume.....	.55 oz. at \$0.36	oz.....	.198
		Bottle and Stopper.....			.05
		Inner Box.....			.015
		Outer Box.....			.005

.55 oz. APPROX. COST AT RETAIL. 0.268

Springtime in Paris (Bourjois) Double Vanity (Naturelle)

Serial No. T-8

SELLING PRICE...\$1.75

APPROXIMATE

COST

POWDER					
62.14	%	Talc.....	.0186 oz. at \$0.0087	oz.....	.000016
26.96	%	CaCO ₃.....	.0081 oz. at .0087	oz.....	.000007
5	%	ZnO.....	.0015 oz. at .016	oz.....	.000002
ROUGE					
74	%	Talc.....	.022 oz. at .0087	oz.....	.000019
19.2	%	CaCO ₃.....	.0057 oz. at .0087	oz.....	.000005
5	%	Dye.....	.0015 oz. at 1.00	oz.....	.0015
1	%	Perfume (Approx.).....	.0003 oz. at 3.00	oz.....	.0003
		Cost of Case.....			.25

.0577 oz. APPROX. COST AT RETAIL. 0.251849

Evening in Paris Bath Dusting Powder

Serial No. T-5		SELLING PRICE...\$1.10	
		APPROXIMATE	
		COST	
89.92%	Talcum.....	4.946 oz. at \$0.0028 oz.....	.0138
0.125%	Zinc Oxide.....	.0069 oz. at .016 oz.....	.0001
1.22%	Calcium Carbonate.....	.0671 oz. at .0028 oz.....	.0002
	Perfume.....		.05
	Powder Puff.....		.05
	Box.....		.05
		<hr/>	
		5.0200 oz. APPROX. COST AT RETAIL. 0.1641	

Barbara Gould Cuticle Remover

Serial No. T-4		SELLING PRICE...\$.55	
		APPROXIMATE	
		COST	
1.49%	KOH.....	0.0084 oz. at \$0.029 oz.....	.000252
20 %	Glycerine.....	0.113 oz. at .0175 oz.....	.001980
78.5 %	H ₂ O.....	0.445 oz. at .0011 oz.....	.000484
	Bottle and Box.....		.05
		<hr/>	
		0.5664 oz. APPROX. COST AT RETAIL. 0.052716	

Barbara Gould Cleansing Cream

Serial No. T-3		SELLING PRICE...\$	
		APPROXIMATE	
		COST	
14 %	Spermaceti.....	.363 oz. at \$0.047 oz.....	.017
14 %	Ceresine Wax.....	.363 oz. at 0.038 oz.....	.0138
43 %	Mineral Oil.....	1.12 oz. at 0.031 oz.....	.0425
28 %	Petrolatum.....	.726 oz. at 0.038 oz.....	.0225
	Jar.....		.0500
		<hr/>	
		2.572 oz. APPROX. COST AT RETAIL. 0.1448	

Barbara Gould Hand Lotion

Serial No. T-2		SELLING PRICE...\$.45	
		APPROXIMATE	
		COST	
5 %	Alcohol.....	.2 oz. at \$0.004 oz.....	0.0008
0.74%	Tragacanth.....	.029 oz. at .031 oz.....	0.0009
10 %	Glycerine.....	.4 oz. at .0175 oz.....	0.0070
5 %	Perfume.....	.02 oz. at 1.00 oz.....	0.0200
83.76%	Distilled Water.....	3.35 oz. at .0011 oz.....	0.0036
	Bottle.....		0.0500
		<hr/>	
		3.999 oz. APPROX. COST AT RETAIL. 0.0823	

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Barbara Gould Shampoo

Serial No. T-1

SELLING PRICE...\$.53

APPROXIMATE

COST

3.6 %	KOH.....	0.144	oz. at \$0.029	oz.....	.00043
2 %	Alcohol.....	0.08	oz. at .004	oz.....	.00032
0.39 %	Perfume.....	0.016	oz. at 1.00	oz.....	.01600
20 %	Mineral Oil.....	0.8	oz. at .047	oz.....	.04000
30 %	Distilled H ₂ O.....	1.2	oz. at .0011	oz.....	.00132
44 %	Oils.....	1.76	oz. at .03	oz.....	.0528
	Bottle.....				.05

4.000 oz. APPROX. COST AT RETAIL. 0.16087

Evening in Paris Face Powder (Rachel No. 2)

with Perfume and Lipstick

Serial No. T-7

SELLING PRICE...\$1.10

APPROXIMATE

COST

	POWDER				
79.95 %	Talcum.....	2.558	oz. at \$0.0087	oz.....	.0223
13.40 %	Zinc Oxide.....	.429	oz. at .016	oz.....	.0068
0.93 %	Calcium Carbonate.....	.0298	oz. at .0087	oz.....	.0003
	Dye				
0.1 %	Perfume}				.05
	Box.....				.03
	Sample bottle Diluted				
	essence Perfume 3.0				
	gm. or 3 c.c.....	.10	oz. at .36	oz.....	.036
	Bottle for Perfume.....				.01
	Container for Lipstick.....				.01
	LIPSTICK 1.5 GRAMS				
15 %	Beeswax.....	.0075	oz. at .045	oz.....	.0003
10 %	Dye.....	.0050	oz. at 1.00	oz.....	.0050
15 %	Ceresine.....	.0075	oz. at .038	oz.....	.0003
30 %	Petrolatum.....	.015	oz. at .038	oz.....	.0006
1 %	Perfume.....	.0005	oz. at 3.00	oz.....	.0015
9 %	Spermaceti.....	.0045	oz. at .047	oz.....	.0002
10 %	Paraffin.....	.005	oz. at .022	oz.....	.0001
10 %	Lanolin.....	.005	oz. at .024	oz.....	.0001

3.1668 oz. APPROX. COST AT RETAIL. 0.1735

Evening in Paris Face Powder (Naturelle) with complimentary Perfume and Lipstick

Serial No. T-6

SELLING PRICE...\$1.10

APPROXIMATE

COST

	POWDER				
79.5 %	Talcum.....	2.558	oz. at \$0.0087	oz.....	.0223
12.85 %	Zinc Oxide.....	.411	oz. at .016	oz.....	.0066
0.90 %	Calcium Carbonate.....	.0298	oz. at .0087	oz.....	.0003
	Dye and Perfume.....				.05
	Box.....				.03
	Sample bottle perfume				
	3 c.c.....	.1	oz. at .36	oz.....	.036
	Bottle.....				.01

Evening in Paris Face Powder (Naturelle) with complimentary
Perfume and Lipstick—*Continued*

Serial No. T-6

SELLING PRICE...\$1.10
APPROXIMATE
COST

LIPSTICK — 1.5 grams			
	Container.....		.01
15 %	Beeswax.....	.0075 oz. at .045 oz.	.0003
10 %	Dye.....	.005 oz. at 1.00 oz.	.005
15 %	Ceresine.....	.0075 oz. at .038 oz.	.0003
30 %	Petrolatum.....	.015 oz. at .038 oz.	.0006
1 %	Perfume.....	.0005 oz. at 3.00 oz.	.0015
9 %	Spermaceti.....	.0045 oz. at .047 oz.	.0002
10 %	Paraffin.....	.005 oz. at .022 oz.	.0001
10 %	Lanolin.....	.005 oz. at .024 oz.	.0001

3.1488 oz. APPROX. COST AT RETAIL. 0.1733

(Rachel No. 2) Richard Hudnut Face Powder Marvelous—
Dark Brunette

Serial No. T-39

SELLING PRICE...\$.55
APPROXIMATE
COST

86.3 %	Talc.....	2.15 oz. at \$0.0087 oz.	.018
6.85 %	Zinc Oxide.....	0.161 oz. at .016 oz.	.002
5.55 %	Zinc Stearate.....	0.138 oz. at .026 oz.	.004
1.21 %	Sienna.....	0.03 oz. at .20 oz.	.006
	Perfume.....		.005
	Container.....		.03

2.479 oz. APPROX. COST AT RETAIL. 0.065

Luzier Rouge

Serial No. T-45

SELLING PRICE...\$1.00
APPROXIMATE
COST

20 %	Beeswax.....	.064 oz. at \$0.045 oz.	.0029
15 %	Lanolin.....	.048 oz. at .024 oz.	.0012
50 %	Petrolatum.....	.160 oz. at .038 oz.	.0061
1 %	Perfume.....	.0003 oz. at 3.00 oz.	.0096
9 %	Dye.....	.0288 oz. at 2.50 oz.	.0720
5 %	Spermaceti.....	.0160 oz. at .047 oz.	.0007
	Container.....		.05

.3171 oz. APPROX. COST AT RETAIL. 0.1425

Luzier's P B AST

Serial No. T-46

SELLING PRICE...\$1.50
APPROXIMATE
COST

5.09 %	Zinc Oxide.....	.3054 oz. at \$0.016 oz.	.0049
0.5 %	Artificial Oil Wintergreen	.03 oz. at .056 oz.	.0017
0.1 %	Dye.....	.006 oz. at 3.00 oz.	.018
	Container.....		.05

.3414 oz. APPROX. COST AT RETAIL. .0746

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Luzier's Cleansing

Serial No. T-47

SELLING PRICE...\$2.50
APPROXIMATE
COST

100%	Lanolin.....	5.7	oz. at \$0.024	oz.....	.1368
	Container.....				.06

5.7 oz. APPROX. COST AT RETAIL 0.1968

Luzier Lutone Skin Cream

Serial No. T-48

SELLING PRICE...\$1.00
APPROXIMATE
COST

0.088%	Zinc Oxide.....	0.0019	oz. at \$0.016	oz.....	.00003
99.91%	Lanolin.....	2.107	oz. at .005	oz.....	.0105
	Container.....				.05

2.1089 oz. APPROX. COST AT RETAIL. .06053

Luzier Skin Refreshener

Serial No. T-49

SELLING PRICE...\$2.50
APPROXIMATE
COST

10.54%	Boric Acid.....	1.686	oz. at \$0.015	oz.....	.0253
1.4 %	Alcohol.....	.224	oz. at .006	oz.....	.0013
	Perfume (very slight) no cost figured				
	Container.....				.05
	Witch Hazel used estimated as.....				.01

1.910 oz. APPROX. COST AT RETAIL. .0866

Luzier's Lu Mar (Massage Cream)

Serial No. T-50

SELLING PRICE...\$3.00
APPROXIMATE
COST

3.12%	Boric Acid.....	0.056	oz. at \$0.015	oz.....	.0008
10 %	Sulphur (App.).....	0.180	oz. at .011	oz.....	.0020
87 %	Wool Fat (App.).....	1.566	oz. at .024	oz.....	.0376
	Container.....				.05
	Other fats or oils in very small percentages.....				.05

1.802 oz. APPROX. COST AT RETAIL. 0.1404

Luzier's Face Powder

Serial No. T-51

 SELLING PRICE...\$1.00
 APPROXIMATE
 COST

1.5 %	Moisture					
80.0 %	Talcum.....	1.52	oz. at \$0.0087	oz.....	.0132	
12.0 %	Zinc Oxide.....	.228	oz. at .016	oz.....	.0036	
6.5 %	Calcium Carbonate.....	.124	oz. at .0087	oz.....	.0011	
0.1 %	Perfume.....		at 3.00	oz.....	.005	
	Dye.....		at 2.50	oz.....	.0048	
	Box.....				.05	

 1.872 oz. APPROX. COST AT RETAIL. 0.0771

Luzier's Rouge

Serial No. T-52

 SELLING PRICE...\$1.00
 APPROXIMATE
 COST

20 %	Beeswax.....	0.064	oz. at \$0.045	oz.....	.0029	
15 %	Lanolin.....	.048	oz. at .024	oz.....	.0012	
50 %	Petrolatum.....	.160	oz. at .038	oz.....	.0061	
1 %	Perfume.....	.0003	oz. at 3.00	oz.....	.0096	
8.9 %	Dye.....	.0288	oz. at 2.50	oz.....	.0720	
5 %	Spermaceti.....	.0160	oz. at .047	oz.....	.0007	
	Container.....				.05	

 .3171 oz. APPROX. COST AT RETAIL. 0.1425

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SURVEY OF CANNED FOODS

Here are the results of the survey of canned foods referred to on page 175, the starred brands being those with the *Good Housekeeping* seal of approval on their labels:

Brand	PEACHES		Price	Quality on Label	Actual Grade
	Packer or Distributor	Class of Store			
Del Monte.....	Packer	Low	.18	....	C
Del Monte.....	"	Middle	.17	....	B
Del Monte.....	"	"	.19	....	C
Del Monte.....	"	Low	.16	....	B
Del Monte.....	"	Middle	.21	....	B
Del Monte.....	"	Low	.20	....	B
Del Monte.....	"	Middle	.19	....	B
Del Monte.....	"	"	.19	....	B
Del Monte.....	"	"	.19	....	C
Del Monte.....	"	"	.19	....	B

PEACHES—Continued					
<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Del Monte.....	Packer	Middle	.20	....	C
Del Monte.....	"	"	.19	....	B
Del Monte.....	"	Low	.18	....	B
Del Monte.....	"	High	.23	....	B
Del Monte.....	"	Middle	.19	....	C
Del Monte.....	"	"	.19	....	B
Del Monte.....	"	"	.19	....	B
Del Monte.....	"	Low	.20	....	C
Del Monte.....	"	Middle	.19	....	B
Del Monte.....	"	"	.19	....	B
Del Monte.....	"	Low	.18	....	B
Del Monte.....	"	Middle	.17	....	C
Del Monte.....	"	High	.17	....	B
Del Monte.....	"	Middle	.17	....	C
Columbus.....	"	"	.18	....	C
Columbus.....	"	"	.18	....	C
Ambassador.....	"	"	.15	....	C
Libby, McNeill & Libby....	"	High	.27	Fancy	A
Libby, McNeill & Libby....	"	Middle	.19	....	B
Libby, McNeill & Libby....	"	"	.19	....	B
Libby, McNeill & Libby....	"	"	.25	Fancy	A
Libby, McNeill & Libby....	"	"	.22	....	B
Libby, McNeill & Libby....	"	Low	.18	....	C
Libby, McNeill & Libby....	"	High	.30	Fancy	A
Libby, McNeill & Libby....	"	"	.25	....	B
Libby, McNeill & Libby....	"	"	.21	....	C
Libby, McNeill & Libby....	"	"	.23	....	B
Libby, McNeill & Libby....	"	Low	.18	....	B
Libby, McNeill & Libby....	"	Middle	.17	....	B
Rose-Dale.....	"	"	.15	....	C
Rose-Dale.....	"	"	.15	....	C
Rose-Dale.....	"	Low	.17	....	C
Hills-Dale.....	"	Low	.14	Substandard	SS
Heart's Delight.....	"	Middle	.19	....	A
Front Line.....	"	"	.15	....	C
Hunt's.....	"	High	.23	....	C
Hunt's.....	"	"	.20	....	C
Pride of California.....	"	Middle	.20	....	C
Pride of California.....	"	High	.19	....	B
Everybody's.....	"	Low	.14	Substandard	SS
Ferndell Raggedy Ann.....	Distributor	High	.35	....	A
Ferndell Yellow Cling.....	"	"	.35	....	A
Ferndell Yellow Cling.....	"	"	.28	....	A
Park & Tilford.....	"	"	.26	....	A
Macy's Lily White.....	"	"	.26	....	A
Macy's Lily White.....	"	"	.24	Fancy	A
Santavalley.....	Packer	"	.25	....	B
*Hearst Ranch.....	"	Middle	.23	Fancy	A
Grisdale.....	Distributor	"	.23	....	A
Golden King.....	"	Low	.17	....	C
White Rose.....	"	"	.16	....	B
White Rose.....	"	High	.28	....	B
White Rose.....	"	Middle	.22	....	C

PEACHES—Continued					
<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Table Time.....	Packer	Middle	.15	....	C
Iona.....	Distributor	"	.15	....	C
Iona.....	"	"	.16	....	C
Iona.....	"	"	.15	....	C
Iona.....	"	"	.19	....	C
Iona.....	"	"	.15	....	C
Iona.....	"	"	.17	....	C
Estelle.....	"	"	.15	....	C
Canfru.....	"	Low	.15	....	C
White Bell.....	"	"	.15	....	C
Sweetheart.....	"	High	.35	....	A
Sweetheart.....	"	"	.30	....	A
Park Farm.....	"	"	.30	....	B
Pono.....	"	"	.28	Fancy	B
Alma.....	"	"	.25	....	B
Lenox.....	"	"	.19	....	B
Sunny Days.....	Packer	Middle	.19	....	B
Asco.....	Distributor	"	.18	....	B
Asco.....	"	"	.18	....	B
Maydot.....	Packer	Low	.15	....	C
Baby Peggy.....	"	"	.15	....	C
Taste Tells.....	"	"	.15	....	C
Uco.....	Distributor	"	.15	....	B
Sunpakt.....	Packer	"	.14	....	C
Topful.....	"	"	.14	....	C
Shamrock.....	Distributor	"	.14	....	C
S & W.....	"	High	.30	....	A
Prattlow.....	Packer	"	.28	Fancy	A
Prattlow.....	"	Middle	.22	Choice	B
Pickwick Club.....	Distributor	"	.17	....	B
Miss California.....	Packer	"	.17	....	B
Miss California.....	"	"	.15	....	C
Hillcrest.....	"	"	.15	....	C
Hillcrest.....	"	"	.15	....	C
Kingan's.....	Distributor	Low	.17	....	A
Buddy.....	"	"	.17	....	C
Silver.....	Packer	"	.17	....	C
Crati.....	"	"	.17	....	C
Fair Play.....	"	Middle	.19	....	C
Blue Jewel.....	Distributor	"	.19	....	C
Country Club.....	"	"	.19	Choice	B
Country Club.....	"	"	.18	"	C
Country Club.....	"	"	.18	"	C
Bonded.....	"	Low	.18	....	C
Avondale.....	"	Middle	.17	....	B
Avondale.....	"	"	.15	....	B
Avondale.....	"	"	.15	....	B
Point Lace.....	"	High	.30	....	A
Centrella.....	"	"	.30	....	A
Richelieu Raggedy Ann.....	"	Middle	.29	....	A
Richelieu Raggedy Ann.....	"	"	.28	....	B
Savoy.....	"	"	.28	....	A
Roman Gold.....	Packer	High	.28	Choice	B

PEACHES—Continued

<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Lady Clementine.....	Distributor	High	.27	....	A
Davis.....	"	Middle	.27	....	A
Traymore.....	"	High	.24	....	C
Telmo.....	"	Middle	.23	....	B
Club House.....	"	"	.22	....	A
Oh Boy.....	"	Low	.22	....	C
American Home.....	"	Middle	.21	....	C
Tegar.....	"	High	.21	....	C
My Preference.....	"	Low	.15	....	C
Packrite.....	Packer	"	.15	....	C
Delman Club.....	Distributor	High	.25	....	A
Topmost.....	"	Middle	.25	....	A
American Lady.....	"	"	.25	....	A
American Lady.....	"	Low	.20	....	B
Moll's Pride.....	"	High	.23	....	B
Nationwide.....	"	Middle	.22	....	B
Rural Gold.....	Packer	High	.20	....	C
Elco.....	Distributor	Low	.20	....	B
Elco.....	"	"	.17	....	B
Red Robe.....	"	"	.20	....	C
Red Robe.....	"	"	.18	....	C
1858.....	"	High	.19	....	B
Highland.....	"	"	.18	....	C
Sacramento.....	"	Middle	.15	....	C
New St. Louis.....	"	Low	.15	....	SS
Orrco.....	"	"	.15	Fancy	C
Western Star Pie.....	"	"	.10	....	SS
California's Nugget.....	Packer	Middle	.17	....	C
Westlight.....	"	"	.15	Standard	C
Aetna.....	"	"	.15	....	C
Our Yellow Free.....	"	Low	.14	....	C

TOMATOES

Del Monte.....	Packer	Middle	.15	....	A
Del Monte.....	"	"	.13	....	A
Del Monte.....	"	"	.15	....	B
*Stokeley's.....	"	High	.14	....	B
*Stokeley's.....	"	Middle	.12	....	B
*Stokeley's.....	"	High	.12	....	B
*Stokeley's.....	"	Middle	.12	....	B
*Stokeley's.....	"	"	.13	....	B
*Stokeley's.....	"	"	.13	....	B
Ferndell.....	Distributor	High	.19	....	A
Macy's Lily White.....	"	"	.14	Fancy	A
White Rose.....	"	Middle	.15	....	A
Rose-Dale.....	Packer	Low	.11	....	C
Iona.....	Distributor	Middle	.10	....	B
Iona.....	"	"	.09	....	C
Iona.....	"	"	.09	....	B
White Bell.....	"	Low	.09	....	B
Park Farm.....	"	High	.20	....	B
Lenox.....	"	"	.15	Fancy	B
Asco.....	"	Middle	.12	....	B

TOMATOES—Continued					
Brand	Packer or Distributor	Class of Store	Price	Quality on Label	Actual Grade
Asco.....	Distributor	Middle	.12	....	B
Uco.....	"	Low	.10	....	A
Blue Jewel.....	"	Middle	.10	....	C
Country Club.....	"	"	.15	Fancy	A
Country Club.....	"	"	.15	"	B
Bonded.....	"	Low	.10	....	B
Avondale.....	"	Middle	.12	....	B
Point Lace.....	"	High	.18	Fancy	B
Centrella.....	"	"	.15	Extra Fancy	B
Richelieu.....	"	"	.15	....	A
Savoy.....	"	Middle	.15	....	B
Lady Clementine.....	"	High	.14	....	A
Davis.....	"	Middle	.14	....	B
Oh Boy.....	"	Low	.12	....	C
American Home.....	"	Middle	.13	....	B
Tegar.....	"	High	.11	....	B
My Preference.....	"	Low	.09	....	C
Delmar Club.....	"	High	.17	....	A
Moll's Pride.....	"	"	.15	Extra	
				Standard	B
A & P.....	"	Middle	.14	Choice	A
A & P.....	"	"	.13	Fancy	SS
A & P.....	"	"	.15	Choice	A
A & P.....	"	"	.14	"	B
A & P.....	"	"	.15	"	B
Essie.....	"	"	.14	Fancy	A
Bymore.....	"	"	.13	....	A
*Snider.....	Packer	"	.15	....	A
*Phillips.....	"	"	.09	....	C
*Phillips.....	"	"	.09	....	B
*Phillips.....	"	Low	.08	....	C
*Phillips.....	"	"	.08	....	C
Hampstead.....	"	Middle	.08	....	B
Pilot.....	Distributor	"	.13	....	B
Pilot.....	"	Low	.12	....	A
Scott Co.....	Packer	"	.10	....	B
Bon Voyage.....	Distributor	High	.16	....	A
Kemp's Sun Rayed.....	Packer	Middle	.15	....	A
Reeve's.....	"	"	.13	....	B
Green Label.....	Distributor	High	.11	....	A
Baby Miller.....	"	"	.11	....	B
Boris.....	Packer	Middle	.10	....	B
Boris.....	"	Low	.09	....	B
Boris.....	"	"	.08	....	B
Boris.....	"	"	.07	....	B
Eglantine.....	Distributor	Middle	.10	Standard	A
Red Ripe.....	Packer	"	.10	....	B
Pride of Dade.....	"	Low	.10	....	B
Headquarters.....	Distributor	"	.10	B
Gold Edge.....	"	"	.10	B
Apte.....	Packer	Middle	.10	C
Marie.....	"	"	.09	C
Handy.....	Distributor	"	.09	B

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TOMATOES—Continued					
Brand	Packer or Distributor	Class of Store	Price	Quality on Label	Actual Grade
Belair.....	Packer	Middle	.09	....	B
Red Skin.....	Distributor	Low	.09	....	B
Pride.....	Packer	Middle	.09	....	B
Gibbs.....	Distributor	"	.08	....	B
Gibbs.....	"	Low	.10	....	B
Fluke's.....	"	High	.16	....	B
Silver Lake.....	Packer	"	.16	....	B
Tropic.....	Distributor	"	.14	....	A
Montco.....	"	Low	.12	....	A
Baker's.....	"	"	.10	....	B
Mar-lo.....	"	"	.09	....	B
Justice.....	"	High	.09	....	A
Seeley's Superb.....	Packer	Low	.08	Grade-B	B
Pine Cone.....	"	"	.08	....	B
Pine Cone.....	"	"	.07	....	C
Roberts Big R.....	Distributor	Middle	.08	....	C
Roberts Big R.....	"	"	.10	....	B
Roberts Big R.....	"	"	.10	....	C
Roberts Big R.....	"	"	.10	....	B
Roberts Big R.....	"	"	.10	....	C
Roberts Big R.....	"	High	.10	....	C
Roberts Big R.....	"	Middle	.09	....	C
Roberts Rig R.....	"	"	.09	....	C
Roberts Big R.....	"	Low	.10	....	C
Crown of Maryland.....	"	Middle	.08	....	B
Crown of Maryland.....	"	Low	.10	....	B
Mapes.....	"	Middle	.08	....	B
Mapes.....	"	Low	.07	Substandard	SS
Cloverdale Farm.....	Packer	Middle	.08	....	C
Salem Company.....	"	High	.15	....	C
Blue Bell.....	Distributor	"	.15	....	A
Goldberne.....	"	Middle	.10	....	C
Reedville.....	Packer	"	.10	....	C
Reedville.....	"	"	.09	....	C
Morgan Company.....	"	Low	.10	....	B
Pride of Virginia.....	"	"	.10	....	B
Pride of Virginia.....	"	"	.09	....	B
Three Rivers.....	"	"	.10	....	B
Mother's Delight.....	Distributor	Middle	.10	....	B
Cypress Farm.....	Packer	"	.10	....	B
Cypress Farm.....	"	"	.09	....	C
Bethel Heights.....	"	"	.09	....	C
Hilltop.....	"	"	.09	....	B
IXL.....	Distributor	"	.09	....	C
Creamery.....	Packer	"	.09	....	C
Creamery.....	"	"	.09	....	C
Washington Elm.....	"	"	.09	....	C
Prim.....	Distributor	"	.09	....	C
Southern Leader.....	Packer	Low	.09	....	C
Sunset.....	Distributor	"	.09	....	C
Hart.....	Packer	Middle	.15	....	B
Culby's.....	"	High	.15	....	B
Candid.....	"	"	.13	....	B

TOMATOES—Continued

<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Kirklin.....	Packer	Middle	.12	....	B
Silver Cup.....	Distributor	High	.12	....	B
Frankton.....	Packer	Middle	.11	....	B
Shirley.....	"	"	.11	....	B
Allied Pack.....	"	"	.11	....	B
River Garden.....	"	"	.11	....	C
Marysville.....	"	"	.10	Choice	C
Mary's.....	"	"	.10	"	B
Fall Creek.....	"	Low	.10	....	B
Tee Dee.....	"	Middle	.10	....	C
Triple CCC.....	"	"	.10	....	B
Smith.....	"	"	.10	....	C
Stoop's Pride.....	"	"	.09	Choice	A
Ko-We-Ba.....	Distributor	High	.15	Fancy	B
AG.....	"	"	.13	....	C
Ireland.....	Packer	"	.12	....	B
LeGrande.....	"	"	.11	....	B
Maryland Chief.....	"	"	.10	Choice	C
Maryland Chief.....	"	"	.10	"	B
Sea View.....	"	Low	.10	....	C
Mand R.....	"	"	.10	....	C
Palen Valley.....	"	Low	.10	....	C
Ozark Mountain.....	"	"	.10	....	B
Mary's Choice.....	"	Middle	.09	Extra Standard	SS
Pride of Pulaski.....	"	"	.09	....	B
Castle Haven.....	"	"	.09	....	B
Castle Haven.....	"	Low	.09	....	C
Neal.....	"	"	.08	Standard	C
Red Moon.....	Distributor	"	.08	....	C
Red Cross.....	Packer	Middle	.11	....	B
Red Cross.....	"	High	.10	....	B
Red Cross.....	"	Low	.09	....	C
Red Cross.....	"	High	.09	....	C
Red Cross.....	"	Middle	.09	....	C
Polly Peeled Italian Style....	"	"	.10	....	C
Dubon.....	Distributor	"	.10	....	C
Pride of Essex.....	Packer	"	.10	....	C
D and E.....	Distributor	"	.10	....	B
Orla.....	Packer	"	.09	Standard	C
Big T.....	"	High	.09	....	C
Big T.....	"	"	.09	....	C

CREAM-STYLE CORN

Del Monte Golden Bantam..	Packer	Middle	.12	....	B
Del Monte Golden Bantam..	"	"	.13	....	A
Del Monte Crosby.....	"	"	.15	....	C
Del Monte Crosby.....	"	"	.14	....	B
Del Monte Tiny Kernel.....	"	Low	.15	....	A
Del Monte Country Gentleman	"	Middle	.13	....	A
Del Monte Country Gentleman	"	"	.15	....	B
Del Monte Country Gentleman	"	"	.13	....	B
Del Monte Country Gentleman	"	"	.15	....	B

CREAM-STYLE CORN—Continued

<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Del Monte Country Gentleman	Packer	Middle	.15	....	A
Del Monte Country Gentleman	"	"	.15	....	A
Del Monte Country Gentleman	"	Low	.15	....	A
Del Monte Country Gentleman	"	Middle	.15	....	A
Del Monte Country Gentleman	"	High	.15	....	A
Libby Golden Bantam.....	"	Middle	.15	Fancy	A
Libby Tiny Kernel.....	"	"	.15	"	A
Libby Tiny Kernel.....	"	"	.14	"	A
Libby Tiny Kernel.....	"	"	.13	....	B
Libby Country Gentleman...	"	Low	.15	Fancy	B
Libby Country Gentleman...	"	"	.15	"	B
Libby Country Gentleman...	"	Middle	.15	"	B
Happy Vale.....	"	"	.11	....	C
*Stokeley's Country Gentleman.....	"	"	.13	....	B
*Stokeley's Country Gentleman.....	"	"	.13	....	A
*Stokeley's Country Gentleman.....	"	"	.15	....	B
Ferndell.....	Distributor	High	.23	....	B
Ferndell.....	"	"	.20	....	A
Park & Tilford.....	"	"	.16	Fancy	B
Macy's Lily White Crosby...	"	"	.14	....	B
Grisdale Golden Bantam...	"	Middle	.15	Fancy	A
White Rose Golden Bantam.	"	Low	.14	....	A
White Rose Golden Bantam.	"	"	.14	....	C
White Rose Golden Bantam.	"	Middle	.18	....	A
Iona.....	Distributor	Middle	.11	....	C
Iona.....	"	"	.10	....	C
Iona.....	"	"	.10	....	C
Iona.....	"	"	.12	....	C
White Bell Sweet.....	"	Low	.12	....	B
Sweetheart.....	"	High	.22	....	B
Park Farm.....	"	"	.20	....	C
Park Farm Golden Bantam..	"	"	.20	....	C
Lenox.....	"	"	.18	....	B
Lenox Golden Bantam.....	"	"	.18	....	C
Lenox Yellow Field.....	"	Low	.10	Substandard	SS
Asco Golden Bantam.....	"	Middle	.13	....	B
Asco Golden Bantam.....	"	"	.15	....	B
Asco Sugar.....	"	"	.12	....	B
Asco Sugar.....	"	"	.15	....	B
Uco Country Gentleman.....	"	Low	.11	Fancy	C
S & W Golden Bantam.....	"	High	.23	....	A
Blue Jewel Country Gentleman.....	"	Middle	.13	....	C
Country Club Country Gentleman.....	"	"	.15	Fancy	B
Country Club Country Gentleman.....	"	"	.13	"	B
Country Club Country Gentleman.....	"	"	.13	"	B
Bonded Sweet.....	"	Low	.12	....	C

CREAM-STYLE CORN—Continued

<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Avondale Sweet.....	Distributor	Middle	.10	....	B
Avondale Sweet.....	"	"	.13	....	B
Avondale Sweet.....	"	"	.13	....	B
Point Lace Country Gentleman.....	"	High	.20	....	B
Richelieu.....	"	"	.18	....	A
Richelieu Golden Bantam....	"	"	.18	....	B
Richelieu Little Kernel.....	"	Middle	.23	....	B
Savoy Sweet.....	"	"	.17	Fancy	B
Lady Clementine Golden Bantam.....	"	High	.15	....	A
Davis Golden Bantam.....	"	Middle	.14	....	A
American Home Golden Bantam.....	"	"	.13	....	C
American Home Country Gentleman.....	"	"	.13	....	B
Tegar Golden Bantam.....	"	High	.13	....	C
My Preference Sweet.....	"	Low	.15	....	C
Nationwide Country Gentleman.....	"	Middle	.15	....	A
1858.....	"	High	.11	....	B
Highland Extra Sweet.....	"	"	.13	....	B
Krasdale.....	"	Middle	.15	Fancy	B
Krasdale Golden Bantam....	"	"	.15	"	A
A & P.....	"	"	.15	"	C
A & P.....	"	"	.14	"	A
A & P.....	"	"	.15	"	B
A & P.....	"	"	.14	"	A
A & P.....	"	"	.15	"	B
A & P Golden Bantam.....	"	"	.15	"	A
A & P Golden Bantam.....	"	"	.14	"	B
A & P Golden Bantam.....	"	"	.15	"	A
A & P Golden Bantam.....	"	"	.14	"	A
Peter Pan Golden Bantam...	Packer	"	.15	"	B
Peter Pan Golden Bantam...	"	High	.18	"	A
Essie Sugar.....	Distributor	Middle	.15	"	A
Honey Drop Golden Bantam.	Packer	"	.15	....	A
Bymore Country Gentleman Sugar.....	Distributor	"	.13	Fancy	A
*Snider's Golden Bantam....	Packer	Middle	.13	....	A
*Snider's Country Gentleman	"	"	.13	....	B
*Snider's Sweet Country Gentleman.....	"	"	.18	....	B
Premier White.....	Distributor	Low	.13	Fancy	A
Premier Golden Bantam....	"	High	.18	"	A
Caroline Sugar.....	"	Low	.13	....	B
Blue Ridge Sugar.....	"	Middle	.12	....	C
Blue Ridge Sugar.....	"	"	.15	....	C
Blue Ridge Sugar.....	"	High	.13	....	C
Blue Ridge Sugar.....	"	"	.12	....	B
Blue Ridge Sugar.....	"	Middle	.12	....	B
Blue Ridge Sugar.....	"	Low	.12	....	C
Blue Ridge Sugar.....	"	"	.12	....	B

CREAM-STYLE CORN—Continued

<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Blue Ridge Sugar.....	Distributor	Middle	.12	....	C
Blue Ridge Sugar.....	"	"	.12	....	B
Blue Ridge Sugar.....	"	Low	.11	....	B
*Monocacy Sugar.....	Packer	Middle	.11	....	B
Checker Sweet Sugar.....	Distributor	Low	.10	....	B
Unicorn Sweet.....	"	"	.10	....	C
Justright Sugar.....	Packer	"	.10	....	C
Justright Sugar.....	"	"	.12	....	B
Maine's Finest Golden Ban- tam.....	"	High	.20	....	C
Chesterbrook Sweet.....	Distributor	"	.20	Fancy	C
Sultana.....	"	Middle	.14	"	B
Maple Valley Sugar.....	Packer	Low	.13	....	B
B & M Paris.....	"	"	.13	....	B
B & M Paris.....	"	Middle	.14	....	C
B & M Paris.....	"	High	.15	....	A
B & M Paris.....	"	"	.15	....	C
B & M Golden Bantam....	"	Middle	.14	....	B
B & M Golden Bantam....	"	"	.12	....	C
Purity Sweet Sugar.....	Distributor	High	.12	....	C
*Phillips Sugar.....	Packer	Low	.10	....	C
*Phillips Sugar.....	"	"	.10	....	C
Co-mont Sugar.....	Distributor	"	.10	....	C
Mayfield Sweetened Field..	Packer	Middle	.10	....	SS
Mayfield Sweetened Field..	"	Low	.09	....	SS
Gold Seal Finest Sweet.....	"	High	.20	....	C
Fort Golden Bantam.....	Distributor	Middle	.15	....	B
My-T-Nice Sugar.....	Packer	High	.15	Standard	B
Torsch's Conqueror Sweet..	Distributor	Middle	.13	....	C
Shriver's Country Gentleman Sugar.....	"	"	.13	....	B
Hampstead Sugar.....	Packer	"	.12	....	SS
Forward Golden Sweet.....	"	"	.12	....	C
Woodsboro Sugar.....	"	"	.10	....	C
Clear Spring Sugar.....	"	"	.10	....	C
Pride of the Valley Sugar...	"	Low	.10	....	SS
Pride of the Valley Sugar...	"	"	.09	....	SS
Satisfactory Sugar.....	"	"	.10	....	B
Bird's Golden Bantam.....	"	"	.10	....	B
Sunshade Sugar.....	Distributor	Middle	.10	....	C
Sunshade Sugar.....	"	"	.09	....	C
Springtime Sweetened Field..	Packer	Low	.09	....	SS
Gold A Bantam.....	"	"	.18	....	B
Roosevelt Golden Bantam...	Distributor	Low	.17	Fancy	C
Lakeside Early Crosby.....	Packer	Middle	.16	....	B
Lakeside Early Crosby.....	"	"	.14	....	B
Lakeside Golden Bantam....	"	Low	.15	Fancy	C
Kaho Sweet.....	Distributor	"	.15	....	C
Eureka Early Crosby.....	Packer	Middle	.13	....	B
Serv-U-Right Tiny Kernel...	Distributor	Low	.11	Fancy	C
Pagin's Evergreen Sugar....	Packer	"	.10	....	C
Come Again Sweet.....	Distributor	Middle	.10	....	B
Excelsior Sweetened Field...	"	Low	.10	....	SS

CREAM-STYLE CORN—Continued

<i>Brand</i>	<i>Packer or Distributor</i>	<i>Class of Store</i>	<i>Price</i>	<i>Quality on Label</i>	<i>Actual Grade</i>
Excelsior Sweetened Field...	Distributor	Low	.10	....	SS
Rarebit Sweet.....	"	Middle	.10	Extra Standard	C
Rarebit Golden Sweet.....	"	"	.10	....	A
Woodford Little Kernel Sweet	Packer	"	.17	....	B
Woodford Golden Kernel....	"	Low	.15	....	A
Woodford Country Gentle- man Sweet.....	"	Middle	.15	....	C
A. Moll Grocery Co. Country Gentleman.....	Distributor	High	.15	....	C
A. G. Country Gentleman...	"	"	.15	Fancy	C
Genesee Valley Country Gen- tleman.....	"	"	.15	....	C
Whitney Golden Bantam....	"	"	.15	....	B
Pilot Country Gentleman....	"	Low	.15	....	C
Pilot Sweet.....	"	"	.13	Fancy	A
Alice of Old Vincennes Sugar.	Packer	"	.15	....	B
Yacht Club Golden Bantam.	Distributor	"	.15	....	B
Walnut Little Kernel Sweet..	Packer	"	.14	....	B
Golden Yellow Golden Bantam	"	Middle	.13	....	A
Royal Prince Country Gentle- man.....	"	"	.13	....	A
Rox-Anna Sugar.....	Packer	High	.12	....	C
Rox-Anna Sugar.....	"	Middle	.10	....	C
Scott Co. Evergreen Sweet...	"	Low	.12	....	C
"V" Brand Sugar.....	"	Middle	.10	....	B
Westwood Sweet.....	Distributor	Low	.10	....	C
Goldwyn Sweet.....	Packer	"	.10	....	B
Sun Ripe Sweetened Field...	"	"	.10	....	SS
Pride of the West Sugar....	"	"	.10	....	C
Geneva Country Gentleman.	"	Middle	.20	....	B
Geneva Country Gentleman.	"	"	.15	Fancy	B
Geneva Country Gentleman.	"	High	.14	"	B
Baby Stuart Country Gentle- man.....	Distributor	Middle	.20	....	C
Blue Label Country Gentle- man.....	Packer	"	.17	Fancy	C
Blue Label Country Gentle- man.....	"	High	.15	"	B
Sunbeam Golden Bantam....	Distributor	"	.15	"	C
Wild Rose Sweet.....	Packer	Middle	.13	....	C
High Grade Sugar.....	Distributor	Low	.11	....	C
Waldron Sweetened Field....	Packer	High	.10	....	SS
Waldron Sweetened Field....	"	Middle	.10	....	SS
Tendersweet Sweet.....	"	"	.10	....	B
Werthmor Sweet.....	"	High	.10	....	C
Pride of the Farm Sweet Sugar	Distributor	Low	.10	C
Pride of the Farm Sweet Sugar	"	Middle	.10	B

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G. Ceribelli & Co., 121 Varick St., New York, N. Y.
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Evans Chemical Co., 241 Walnut St., Cincinnati, Ohio.
Ex-Lax, Inc., 423 Atlantic Ave., Brooklyn, N. Y.
Dr. Peter Fahrney & Sons Co., 2501 Washington Blvd., West,
Chicago, Ill.
C. B. Fleet Co., 921 Commerce St., Lynchburg, Va.
Fleming Brothers, 809 Exchange Ave., Chicago, Ill.
Foley & Co., 945 George St., Chicago, Ill.
Foster-Milburn Co., 1280 Main St., Buffalo, N. Y.
Furst-McNess Co., Freeport, Ill.
R. W. Gardner, Inc. (Firm of), Box 187, Orange, N. J.
Garfield Tea Co., 41st St. and 3rd Ave., Brooklyn, N. Y.
General Laboratories, 1000 Widener Bldg., Philadelphia, Pa.
Glessner Co., Findlay, Ohio.
H. Clay Glover Co., Inc., 119 Fifth Ave., New York, N. Y.
Godefroy Mfg. Co., 3506 Olive St., St. Louis, Mo.
W. F. Gray & Co., Inc., 161 Fourth Ave., Nashville, Tenn.
G. G. Green, Inc., Woodbury, N. J.
J. H. Guild Co., Inc., Rupert, Vt.
Hamlin's Wizard Oil Co., 2616 N. Cicero Ave., Chicago, Ill.
G. C. Hanford Mfg. Co., 304 Oneida St., Syracuse, N. Y.

- L. Heumann & Co., Inc., 34 E. 12th St., New York, N. Y.
 Himrod Manufacturing Co., 463—11th St., Hoboken, N. J.
 Hiscox Chemical Works, Patchogue, N. Y.
 John Hoerr, 1616 Pine St., St. Louis, Mo.
 Hoover Liniment Co., Carlisle, Ind.
 Hostetter Co., 57 Water St., Pittsburgh, Pa.
 Howard Bros. Chemical Co., Inc., 457 Washington St., Buffalo, N. Y.
 Humphrey's Homeopathic Medicine Co., Lafayette & Prince Sts., New York, N. Y.
 Industrial Alcohol Institute, Inc., 420 Lexington Ave., New York, N. Y.
 Ironized Yeast Co., Box 2207, Atlanta, Ga.
 Katharmon Chemical Co., 101 N. Main St., St. Louis, Mo.
 John T. Kennedy Sales Co., 26th St. & Southwest Blvd., Kansas City, Mo.
 Koenig Medicine Co., 1045 N. Wells St., Chicago, Ill.
 Kohler Mfg. Co., 15 E. Lombard St., Baltimore, Md.
 Kuhn Remedy Co., 1855 Milwaukee Ave., Chicago, Ill.
 Thomas Leeming & Co., 101 W. 31st St., New York, N. Y.
 Losana Products, Ltd., 126 S. La Brea Ave., Los Angeles, Cal.
 Lucky Tiger Mfg. Co., 6th and Delaware Sts., Kansas City, Mo.
 B. S. McKean, Inc., Mamaroneck, N. Y.
 Manola Company, 4200 LaCleve Ave., St. Louis, Mo.
 Merck & Co., Inc., Lincoln Ave., Rahway, N. J.
 Meyer Bros. Drug Co., 4th St. and Clark Ave., St. Louis, Mo.
 C. J. Moffett Medicine Co., Box 828, Columbus, Ga.
 Mountain Valley Springs Co., 3673 Olive St., St. Louis, Mo.
 Mu-Col Co., 156 East Tupper St., Buffalo, N. Y.
 National Remedy Co., Inc., 56 W. 45th St., New York, N. Y.
 Neet, Inc., 8100 McCormick Blvd., Chicago, Ill.
 Nelson Mfg. Co., Inc., 204 N. 14th St., Richmond, Va.
 Newskin Co., Bush Terminal, 882—3rd Ave., Brooklyn, N. Y.
 Old Peacock Sultan Co., 4500 Park View Place, St. Louis, Mo.
 Allen S. Olmsted, LeRoy, N. Y.
 Omega Chemical Co., 220—36th St., Brooklyn, N. Y.
 Othine Laboratories, 327 Washington St., Buffalo, N. Y.
 Parry Vegetable Compound Co., 20 N. Foster St., Mansfield, Ohio.
 Pepsodent Co., 919 N. Michigan Blvd. Chicago, Ill.
 Peroxide Chemical Co., 6300 Etzel Ave., St. Louis, Mo.

Joseph Personeni, 496 Broadway, New York, N. Y.
F. H. Pfunder, Inc., 1914 Nicollet Ave., Minneapolis, Minn.
Phenyo Caffein Co., 175 Varick St., New York, N. Y.
Picot Laboratories, Inc., Picot Bldg., Wilmington, Del.
Pinex Company, 123 W. Columbia St., Ft. Wayne, Ind.
Lydia E. Pinkham Medicine Co., 271 Western Ave., Lynn, Mass.
H. Planten & Son, Inc., 93 Henry St., Brooklyn, N. Y.
Pycope, Inc., 531 Kentucky Ave., Joplin, Mo.
J. W. Quinn Drug Co., Box 847, Greenwood, Miss.
Radway & Co., Inc., 208 Center St., New York, N. Y.
D. Ransom Son & Co., 137 Main St., Buffalo, N. Y.
W. T. Rawleigh Co., South Liberty Ave., Freeport, Ill.
Renton Co., Ltd., Station C., Pasadena, Cal.
Rheuma Co., 42 Pearl St., Buffalo, N. Y.
Dr. Richards Association, Inc., South Norwalk, Conn.
F. Ad. Richter & Co., South 5th and Berry Sts., Brooklyn, N. Y.
Rinex Laboratories Co., 1311 W. 80th St., Cleveland, Ohio.
Harold F. Ritchie Co., Ltd., Toronto, Canada (N. Y. Office—
40 E. 34th St.).
E. W. Rose Co., 1750 E. 27th St., Cleveland, Ohio.
Sydney Ross Co., 116 Astor Place, Newark, N. Y.
George H. Rundle Co., Piqua, Ohio.
R. Schiffmann Co., 1734 N. Main St., Los Angeles, Cal.
Scholl Manufacturing Co., 213 W. 14th St., Chicago, Ill.
Scott & Bowne, Bloomfield, N. J.
W. F. Severa Co., 400 S. 1st St., Cedar Rapids, Iowa.
T. A. Slocum Co., 548 Pearl St., New York, N. Y.
Standard Drug & Sales Co., 1201 Race St., Philadelphia, Pa.
Stearns' Electric Paste Co., 435 N. Michigan Ave., Chicago, Ill.
Frederick Stearns & Co., 6533 Jefferson Ave., Detroit, Mich.
Stillman Co., Aurora, Ill.
Sterizol Co., Inc., Ossining, N. Y.
Strong Cobb & Co., 206 Central Viaduct, Cleveland, Ohio.
F. A. Stuart Co., 117 S. Jefferson St., Marshall, Mich.
Styron-Beggs Co., 39 S. 4th St., Newark, Ohio.
Sulpho-Naphthol Co., 24 Sudbury St., Boston, Mass.
Swanson Co., Newark, Ohio.
Swift Specific Co., Atlanta, Ga.
Syracuse Medicine Co., 558 E. Genesee St., Syracuse, N. Y.
Thomas Taggart, c/o French Lick Springs Hotel, French Lick, Ind.

- D. G. H. Tichenor Antiseptic Co., Canal and Common Sts., New Orleans, La.
 Tracy Company, Drawer 863, New London, Conn.
 Joseph Triner Co., 1333 S. Ashland Ave., Chicago, Ill.
 J. S. Tyree (Chemist), Inc., 16th and Columbus Ave., Washington, D. C.
 U. S. Industrial Alcohol Co., 60 E. 42nd St., New York, N. Y.
 Vapo-Cresolene Co., 62 Cortlandt St., New York, N. Y.
 Viavi Co., 636 Pine St., San Francisco, Cal.
 C. Wakefield & Co., 514 E. Washington St., Bloomington, Ill.
 Walker Remedy Co., 224 Commercial St., Waterloo, Iowa.
 J. R. Watkins Co., 150 Liberty St., Winona, Minn.
 R. L. Watkins Co., 360 Elizabeth Ave., Newark, N. J.
 A. J. White, Ltd., 70 West 40th St., New York, N. Y.
 J. Harrison Whitehurst Co., 415 Franklin St., Baltimore, Md.
 Wildroot Co., 1490 Jefferson Ave., Buffalo, N. Y.
 Wintersmith Chemical Co., Inc., 649 West Hill St., Louisville, Ky.
 Wizard Lightfoot Appliance Co., 1627 Locust St., St. Louis, Mo.
 World's Dispensary Medical Assn., 663 Main St., Buffalo, N. Y.
 Wright's Indian Vegetable Pill Co., Inc., 100 Gold St., New York, N. Y.
 W. F. Young, Inc., 111 Lyman St., Springfield, Mass.

I

INSTITUTE OF MEDICINE MANUFACTURERS

(Now includes also the *United Medicine Manufacturers of America, Inc.*)

- Officers: D. E. Austin, Thomas Leeming & Company, New York City, president; Charles L. Huisking, Charles L. Huisking & Company, New York City, first vice-president; William P. Jacobs, Jacobs' List, Clinton, S. C., second vice-president; P. L. Frailey, Rinex Laboratories, Cleveland, Ohio, third vice-president; J. B. Van Dyke, Van Dyke Chemical Company, Philadelphia, Pa., secretary; T. S. Strong, Strong, Cobb, Inc., Cleveland, Ohio, treasurer.
- Adlerika Co., St. Paul, Minn.
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Chicago Spice & Flavor Extract Co., Chicago, Ill.
Chichester Chemical Co., Philadelphia, Pa.
Coco-Cod Co., Chicago, Ill.
Coloni Labs, Inc., St. Louis, Mo.
Corona Manufacturing Co., Kenton, O.
Creomulsion Co., Atlanta, Ga.
Dee-Lure Medicine Co., Columbus, O.
Dickey Drug Co., Bristol, Va.
Dionol Co., Detroit, Mich.
East India Medicine Co., St. Louis, Mo.
Easyhold Truss Co., Kansas City, Mo.
Easy Teether Medicine Co., Inc., Westminster, S. C.
Ensign Co., Battle Creek, Mich.
Epicol Products Co., Minneapolis, Minn.
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Favreau & Collette, Spencer, Mass.
First National Laboratories, Inc., Leighton, Pa.
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Fleming Bros. Co., Inc., Pittsburgh, Pa.
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Fugate Co., Indianapolis, Ind.
Gallia Laboratories, Inc., New York City, N. Y.
W. W. Gavitt Medical Co., Topeka, Kan.
General Laboratories, Minneapolis, Minn.
Germania Tea Co., Minneapolis, Minn.
Gino Pill Co., Inc., Buffalo, N. Y.
Goodrich-Gamble Co., St. Paul, Minn.

Mrs. Albert B. Griffith, Parkersburg, W. Va.
 Albert G. Groblewski & Co., Plymouth, Pa.
 Hagen Import Co., St. Paul, Minn.
 Haley Medicines, Haverhill, Mass.
 Hampton Drug Co., Inc., Carterville, Ill.
 W. T. Hanson Co., Schenectady, N. Y.
 Heals-Var Co., Kansas City, Mo.
 Z. G. Herbs Co., Chicago, Ill.
 Hobo Medicine Co., Beaumont, Tex.
 Holford Co., Minneapolis, Minn.
 Home Drug Co., Minneapolis, Minn.
 Home Remedy Co., Pittsburgh, Pa.
 Houchens Medicine Co., Baltimore, Md.
 J. E. Hough & Sons, Manchester, Tenn.
 Hoyt Bros., Inc., Newark, N. J.
 K. A. Hughes Co., Boston, Mass.
 Hunter Laboratories, Little Rock, Ark.
 Hy'ne Co., Chicago, Ill.
 Indian Mineral Crystals Corp., Forth Worth, Tex.
 Indiana Botanic Gardens, Hammond, Ind.
 Innerclean Manufacturing Co., Los Angeles, Calif.
 International Laboratories, Rochester, N. Y.
 International Proprietaries, Inc., Dayton, O.
 Iosaline Co., Washington, D. C.
 Jackson Medicine Co., Zanesville, O.
 Jacobs' Religious List, Clinton, S. C.
 W. P. Jacobs, Clinton, S. C.
 C. E. Jamieson & Co., Detroit, Mich.
 Johnston Holloway & Co., Inc., Philadelphia, Pa.
 Kal Products Co., Inc., St. Paul, Minn.
 W. C. Kalash, Inc., Omaha, Neb.
 Keller Co., Mechanicsburg, O.
 Kenyon & Thomas, Adams, N. Y.
 W. S. Kirby Co., Dallas, Tex.
 Knox Co., Kansas City, Mo.
 Kondon Manufacturing Co., Minneapolis, Minn.
 Laubach Proprietary Medecines, Inc., Jersey City, N. J.
 Thomas Leeming & Co., New York, N. Y.
 Dr. H. C. Lemke Medicine Co., Chicago, Ill.
 Lucky Tiger Manufacturing Co., Kansas City, Mo.

Luna Laboratory Co., San Antonio, Tex.
Lung Germine Co., Jackson, Mich.
J. A. McGill & Co., Chicago, Ill.
Dr. J. H. McLean Medicine Co., St. Louis, Mo.
Mackie Pine Oil Specialty Co., Covington, La.
Meritol Co., Decorah, Ia.
Micajah & Co., Warren, Pa.
Edward J. Moore Sons, Inc., Long Island City, N. Y.
Muir Laboratories, Grand Rapids, Mich.
Murine Co., Chicago, Ill.
Natex Co., Baltimore, Md.
National Remedy Co., New York, N. Y.
Theo. Noel Co., Chicago, Ill.
Nulfey Laboratories, Philadelphia, Pa.
Nurito Co., Chicago, Ill.
Old Mission Laboratories, Pasadena, Calif.
Pabst Chemical Co., Inc., Chicago, Ill.
Dr. E. E. Paddock, Kansas City, Mo.
Paris Medicine Co. (Grove Laboratories), St. Louis, Mo.
Park Laboratory Co., San Antonio, Tex.
I. Paul, Philadelphia, Pa.
Lee D. Perkins Drug Co., Denver, Colo.
Peterson Ointment Co., Inc., Buffalo, N. Y.
Pfeiffer Manufacturing Co., St. Louis, Mo.
Pinex Co., Fort Wayne, Ind.
Lydia E. Pinkham Medicine Co., Lynn, Mass.
Plapao Laboratories, St. Louis, Mo.
Plough Chemical Co., Memphis, Tenn.
Reducine Co., Otsego, Mich.
Reese Chemical Co., Cleveland, O.
Research Laboratories, Inc., Portland, Ore.
Rinex Laboratories Co., Cleveland, O.
Rival Herb Co., Detroit, Mich.
Royal Manufacturing Co., Duquesne, Pa.
E. I. Runner Co., Inc., Wheeling, W. Va.
Sanitube Co., Newport, R. I.
Sa-Tan-Ic Medicine Co., Wichita, Kan.
Scientific Laboratories of America, San Francisco, Calif.
Scientific Manufacturing Co., Inc., Scranton, Pa.
Seeck & Kade, New York, N. Y.

Snyder Products Co., Inc., Chicago, Ill.
 Dr. Southington Remedy Co., Kansas City, Mo.
 Stanback Co., Salisbury, N. C.
 Standard Chemical Co., South Pasadena, Calif.
 Sulphur Products Co., Greensburg, Pa.
 Takara Laboratories, Inc., Portland, Ore.
 Templetons, Inc., Detroit, Mich.
 Thompson Medical Co., Titusville, Pa.
 Toma, Inc., Ligonier, Pa.
 Treatine Laboratories, Columbus, O.
 Troy Chemical Co., Binghamton, N. Y.
 Udga, Inc., St. Paul, Minn.
 Van Dyke Chemical Co., Inc., Philadelphia, Pa.
 Vapo-Cresolene Co., New York, N. Y.
 Vimedia Co., Kansas City, Mo.
 Walker Remedy Co., Waterloo, Ia.
 Warner's Renowned Remedies, Minneapolis, Minn.
 Westwood Pharmacal Co., Buffalo, N. Y.
 Wilson Chemical Co., Tyrone, Pa.
 F. E. Young & Co., Chicago, Ill.
 Zerbst Pharmacal Co., St. Joseph, Mo.
 Zo-Ro-Lo, Inc., Ada, O.

ASSOCIATE MEMBERSHIP

Allaire Woodward & Co., Peoria, Ill.
 American Druggist, New York, N. Y.
 American Envelope and Printing Co., Philadelphia, Pa.
 Anchor Cap & Closure Co., Long Island City, N. Y.
 Arner Co., Inc., Buffalo, N. Y.
 Artcraft Display Service, Pittsburgh, Pa.
 Braden-Sutphin Ink Co., Cleveland, O.
 Burd & Fletcher Co., Kansas City, Mo.
 F. N. Burt Co., Ltd., Buffalo, N. Y.
 Clark Display Service, Houston, Tex.
 Commercial Solvents Corporation, New York City, N. Y.
 C-Y-C Advertising Carriers, Knoxville, Tenn.
 Denver Distributing & Addressing Co., Denver, Colo.
 Chas. H. Dietz & Co., St. Louis, Mo.
 Dis-Play-Well, Inc., New York, N. Y.
 Everett H. Dobbins, Pekin, Ill.

Druggists Addressing Co., St. Louis, Mo.
Druggists Circular, New York, N. Y.
Drug Markets, New York, N. Y.
Drug Trade News, New York, N. Y.
Evening News Co., Bridgeton, N. J.
Findley Distributing Service, Minneapolis, Minn.
Allan L. Firestone Advertising Agency, St. Paul, Minn.
Harvey-Massingale Co., Inc., Atlanta, Ga.
Chas. M. Henry Printing Co., Greensburg, Pa.
Heyden Chemical Corp., New York, N. Y.
W. S. Hill Co., Pittsburgh, Pa.
Hinde & Dauch Paper Co., Sandusky, O.
Hoffman La Roche Chemical Works, Nutley, N. J.
Holling Press, Buffalo, N. Y.
Chas. L. Huisking & Co., Inc., New York, N. Y.
Walter Journeay, Orange, Tex.
Journal World, Lawrence, Kans.
Kalpheno Chemical Co., Philadelphia, Pa.
Kimble Glass Co., Vineland, N. J.
William Koehl Co., Cincinnati, O.
Lake-Spiro-Cohn, Inc., Memphis, Tenn.
Liberty Can & Sign Co., Inc., Lancaster, Pa.
Life Aid Laboratory, Chicago, Ill.
Magnus Mabee & Reynard, Inc., New York, N. Y.
Mallinckrodt Chemical Works, New York, N. Y.
Maryland Glass Corp., Baltimore, Md.
Merck & Co., Rahway, N. Y.
Molton Advertising Agency, Cleveland, O.
Monsanto Chemical Co., St. Louis, Mo.
New York Quinine & Chemical Works, Brooklyn, N. Y.
Ohio State Journal, Columbus, O.
Owens-Illinois Glass Co., Toledo, O.
Pacific Drug Review, Portland, Ore.
S. B. Penick & Co., New York, N. Y.
Joseph Personeni, Inc., New York, N. Y.
Chas. Pfizer & Co., Inc., New York, N. Y.
Philadelphia Wholesale Drug Co., Philadelphia, Pa.
Pierce Glass Co., Port Allegany, Pa.
Dr. Pierre Chemical Co., Chicago, Ill.
Pittsburgh Windo-Craft Service, Pittsburgh, Pa.

Practical Druggist, 93 Nassau St., New York, N. Y.
 Progressive Drug Co., New York, N. Y.
 Richardson-Plant, Inc., Cleveland, O.
 Root-Mandabach Advertising Agency, Chicago, Ill.
 E. N. Rowell Co., Inc., Batavia, N. Y.
 Shores Co., Inc., Cedar Rapids, Ia.
 Allen C. Smith Advertising Co., Kansas City, Mo.
 Smith Kline & French, Inc., Philadelphia, Pa.
 Southern Pharmaceutical Journal, Dallas, Tex.
 C. E. Stewart Advertising Agency, Portsmouth, O.
 Strong Cobb Co., Inc., Cleveland, O.
 Superior Folding Box Co., St. Louis, Mo.
 Triple A Advertising Carriers, Inc., St. Louis, Mo.
 William A. Webster Co., Memphis, Tenn.

"THE 17 PLANS"

At their convention in Chicago in September, 1933, the United Medicine Manufacturers of America drew up these "17 plans" of opposition to the proposed new food-and-drug legislation, which were subsequently reported in *Drug Trade News*, September 18:

"1. Increase the membership of Association at once to present a united front in combating the measure.

"2. Secure cooperation of newspapers in spreading favorable publicity, particularly papers now carrying advertising for members of the Association.

"3. Enlisting all manufacturers and wholesalers, including those allied to the trade, and inducing them to place the facts before their customers through salesmen, and in all other possible ways, to secure their cooperative aid.

"4. Secure the pledge of manufacturers, wholesalers, advertising agencies and all other interested affiliates to address letters to Senators to secure their promise to vote against the measure.

"5. Line up with other organizations, such as Drug Institute, Proprietary Association, National Association of Retail Druggists, and others, to make a mass attack on bill.

"6. Appointment by the President of a committee to work in conjunction with Attorney Clinton Robb.

"7. Cooperation of every member in forwarding to headquarters newspaper clippings and all available data as basis for bulletins and favorable publicity.

"8. Cooperation of every member in doing missionary work in home districts to arouse public to the dangers of the legislation proposed.

"9. Carrying to the public by every means available, radio, newspaper, mail and personal contact, the alarming fact that if the bill is adopted, the public will be deprived of the right of self-diagnosis and self-medication, and would be compelled to secure a physician's prescription for many simple needs.

"10. Arrange for conferences between Association Committee and representatives of all other trade associations interested.

"11. Enlist the help of carton, tube, bottle and box manufacturers.

"12. Defeat use of ridicule by American Medical Association, proponents of the measure, by replying with ridicule.

"13. Convince newspapers of justness of cause and educate public to same effect.

"14. Setting up publicity department for dissemination of information.

"15. Enlisting aid of Better Business Bureau in various cities.

"16. Direct and constant contact with situations at Washington under leadership of Attorney Robb.

"17. Pledge of 100% cooperation on part of every member of the Association present for continued and unremitting activity in every possible direction to defeat measure."

J

REPORT OF COMMITTEE ON LEGISLATION RESOLUTION NO. 162

Report of Committee on Legislation Resolution No. 162 by
Delegate David R. Glass, Washington, D. C., Central Labor

Union, Report of Proceedings, Annual Convention of American Federation of Labor, San Francisco, 1934.

"WHEREAS, The Federal Food and Drugs Act of 1906 has proved to be a very definite protection to the consumer of foods and drugs against physical injury and economic loss;

"WHEREAS, The passage of time and its accompanying revolution in sales methods have introduced new dangers to the consumer against which the present Food and Drugs Act offers no protection;

"WHEREAS, The officials in charge of enforcing the Federal Food and Drugs Act have from time to time called public attention to the many serious defects in the existing law;

"WHEREAS, These same officials have prepared and submitted to the Seventy-third Congress a revised Food and Drugs Act designated as Senate Bill 1944, which Act will extend the scope of the present Act to include therapeutic devices, obesity cures and cosmetics; which will extend the scope of the Act to cover advertising other than that which appears upon the label of articles of food and drugs; which will make illegal false therapeutic claims; which will set up more severe penalties for violation of the Act; and which proposed Act contains many other features of vital importance to the consumer;

"RESOLVED, That the American Federation of Labor, in its Fifty-fourth Annual Convention, assembled in San Francisco October 1, 1934, embrace in its legislative program the Senate Bill 1944, cited above, with such other features as will guarantee a Food and Drugs Act providing adequate protection for the consumer and carrying sufficient penalties for violation of the Act to insure its proper observance; further

"RESOLVED, That copies of this resolution be forwarded to the Secretary of Agriculture.

"Resolution No. 162 reiterates the policy of the American Federation of Labor, so far as support of the Food and Drugs Act is concerned.

"The committee recommends that the resolution be referred to the Executive Council with instructions that the Council investigate and co-operate with the proper authorities for any needed amendments of the Food and Drugs Act.

"A motion was made and seconded to adopt the report of the committee.

"Delegate Glass, Washington (D.C.) Central Labor Union: I shall not take up but a minute or two of your time to express my appreciation of this matter being referred to the Executive Council. I am satisfied that the Executive Council will go into this matter thoroughly and will see the necessity of obtaining appropriate legislation under the Food and Drugs Act. The Food and Drugs Act as passed in 1906 is entirely inadequate to take care of the requirements for the protection of the consumer today. There are a number of things that should be added to that Act for our protection, and particularly for the benefit of Organized Labor.

"I merely wanted to call the attention of the delegates to that phase of the proposition so that they might familiarize themselves with the situation with reference to the present laws concerning the Food and Drugs Administration.

"There is a considerable amount of merchandise on the market on which there is no protection at all. In a number of instances persons have been injured for life because of injurious products, and for that reason it behooves us to take notice of this beneficial legislation.

"I am satisfied that this matter shall go to the Executive Council, and I hope Organized Labor will take note of this, because in the last Congress there were very powerful lobbies against the bill.

"The report of the committee was adopted unanimously."

K

In discussing the attitude of the press in 1906, when his famous Pure Food Law was enacted against the bitterest opposition, the late Dr. Harvey W. Wiley wrote:

"Out in Kansas, William Allen White, editor of the *Emporia Gazette*, pointed the way to honesty and decency by banning fraudulent advertising from his columns. To be sure, his example was not immediately followed by the bulk of editors and publishers, but it served to throw such newspaper men in league with fraudulent advertisers, into an unfavorable contrast."

Twenty-seven years later, when an attempt was made to revise the Wiley law in the interests of consumers, the *Emporia Gazette* was one of the handful of newspapers that dared support the proposed legislation. The following editorial was reprinted in the *St. Louis Post-Dispatch*, another journal in this courageous minority, on December 18, 1933:

FOR DRUG LAW REFORM

From the Emporia (Kan.) "Gazette"

"Every newspaper trade journal as well as every house organ of the various drug and food associations is crammed with frightened and anguished yells over the Tugwell bill, coming up in the next session of Congress.

"The Gazette is for this bill. It is designed, first of all, to clean up advertising. And, on the whole, advertising could stand it in spots. Various quack nostrums, under the terms of our present Food and Drug Act, may make through newspapers, magazines and over the radio much wider claims than they dare to put on the label of the product. The Tugwell bill would stop this.

"It would go further. It would require every manufacturer to put on the label the exact ingredients which go into the bottle, can or tube. It would abolish 'secret' formulas, which in itself is a splendid thing. The public is entitled to know exactly what stuff it is putting into its stomach or rubbing into its hair.

"The alarmists cry that it will abolish a large percentage of the present advertising. If this advertising lives only through misrepresentation and false and misleading innuendo, it deserves to be abolished.

"It will undoubtedly put out of business a large number of manufacturers of phony drugs, foods and cosmetics. But the public will buy just as many cans of food and bottles of medicine after the passage of the act as before. The difference will be that, first, they will know what they are getting, and secondly, they will not be misled into buying worthless if harmless preparations.

"The salves which 'relieve' cancer and tooth pastes to 'cor-

rect' stuttering will, of course, be out entirely. Many fake brand names will be quickly forgotten, and many fine preparations, legitimately advertised, will come forward into a new prominence.

"The druggist will take in just as much money as before. But his conscience will be clearer when he knows that poor people are not being deluded by wild advertising claims into dopping themselves with drugs which do no good.

"It is possible that many legitimate manufacturers and dealers may worry about the possible effects of the Tugwell bill before it gets into operation. But no one with clean hands will be hurt by it; as a matter of fact, because of the removal of unprincipled competition, they should be greatly helped.

"So more power to the Tugwell bill, and the sooner it gets into operation the better."

L

Lest we be accused of bias in reporting Mrs. Roosevelt's visit to the "Chamber of Horrors," we refer the reader to the account of this incident which appeared October 24, 1933, in the *Chicago Tribune*, a newspaper which advertises itself as a "leader" in drug advertising.

We had intended to quote this story here but, at the last moment and while the book was actually on the press, were unable to secure the permission of the publishers.

M

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Chapter One

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